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Selections: Medicine.

THE DOMESTIC TREATMENT OF INSANITY.

BY STANLEY HAYNES, M.D.

(Continued from October Number.)

Much trouble is sometimes experienced in persuading patients who believe their food is poisoned, that they are full of various substances, that they cannot swallow, or who have other such delusions, to take a sufficient quantity of aliment. Very often the intestines require to be relieved from distension or acrid secretions; in such cases enemata suitable to the symptoms, sulphate of magnesia, croton oil, turpentine with castor oil, assafœtida, or other remedies, will often remove the objections to taking food. Fœtor of the breath frequently results from the ingestion of too little food, and then is removed by a good meal; it is as well to mention this because it might be supposed to indicate the necessity for a purgative when one would be decidedly injurious.

Alimentation should never be forced if it can be effected by reasoning and persuasion. Some patients will take their meals voluntarily when not watched, or when allowed to steal it, who positively refuse it if they suspect they are being noticed. When it becomes necessary to feed against the will of the patient, there are three modes at our choice: food can be given by the mouth, nose, and rectum. Feeding by enemata is seldom practicable when meals are refused. Alimentation by the mouth is more rapid than by the nose, and, naturally, is the favourite method; sometimes, though seldom, the patient will take food from a spoon or a spout. When the patient resists there is usually some trouble to the operator and pain to the patient in getting the mouth open and passing a tube to the stomach. It is frequently necessary to pass the tube beyond the voluntary muscles of the pharynx, to prevent the patient ejecting the fluid. The use of the stomach pump for alimentation is so disagreeable to patient and to operator, that I never use one if I can obtain a feeding bottle, or even a funnel to place in the end of the tube: the tube being inserted the fluid is poured down it, care being taken to regulate the flow so that the stomach may receive its contents gradually, and therefore be less liable to become irritable. The third method—that of feeding through the nostril—is the easiest in a refractory patient, although not the quickest: a nose-tube or funnel is passed along the floor of a nostril, the mouth being kept closed; the food must fall into the œsophagus; the feeding bottle, or a sauce-boat, or a jug, is the most convenient receptacle for the food; care must be taken to permit intervals for swallowing and breathing, lest any of the fluid enter the larynx.

Sometimes the treatment of a case is almost limited to alimentation. All asylum physicians know that numerous cases require hardly anything beyond careful nursing and feeding to ensure their recovery. In cases of insanity due to anæmic, debilitated states, champagne and nutrients induce sleep, and so act as the best sedatives we can give.

The use of *baths* is determined, to a great extent, by the state of the skin. A bath at the temperature of 95° F. is a good sedative in sthenic cases and is often succeeded by sound sleep. The duration of its employment varies

according to the pulse and appearance of the patient, but it should not be continued more than half-an-hour. When the pulse falls or diminishes in hardness, or if the patient becomes pale, the bath must be discontinued. Whenever a warm bath is given to a maniacal patient the head should be kept cold by a wet towel wrapped round it and often wetted: a thin stream of cold water continuously poured from a height (affusion) is a simple and better plan; an easy mode of getting this is to have a skein of worsted hanging over the edge of a vessel full of water. The shower bath is so frequently regarded by patients as a punishment, the idea of which towards the sane is so revolting, that it is seldom used, although an excellent means of allaying excitement; when applied the feet should be in warm water, and the shower should not last longer than one minute. If there be any tendency to congestion of the lungs or other viscera, the shower bath should be used cautiously, if at all, on account of internal congestion retarding the return of blood from the head: in such cases the shower should be to the head alone, by causing the patient to lie down.

The *mustard bath* is most valuable in inducing sleep, and will be found of most benefit when there are symptoms of cerebral congestion. It is made by throwing two handfuls of mustard into a bath of 95° temperature, or, better, by mixing the mustard in a basinful of boiling water and then stirring the contents into the bath. The length of time for this bath will depend upon the state of the pulse and skin, but unless the pulse sinks too much it is advisable to continue the bath until the skin has become well reddened. The patient is then placed in bed and silence is maintained. Very often this simple treatment produces sound and refreshing sleep and so does incalculable good. Whenever the mustard bath is used care must be taken to protect the genitals by a wet towel firmly fastened around them. Sometimes it is difficult to get or to give the bath: in such cases I have found a very good plan is to wrap the patient in a sheet which has been saturated with a mixture of mustard and hot water, the same precaution being taken as with the bath, and similar effects being produced.

A soothing and easy mode of causing or continuing sleep, most applicable and often efficacious in asthenic cases, is to use a pillow case stuffed with fresh hops.

Medicinal sedatives.—It is bad treatment to give sedatives to patients to keep them quiet: they should not be given with that object, if we wish to cure our patients, but only to cause sleep when this is deficient.

The question of sleep is of paramount importance in the successful treatment of insanity. Failing to cause it by the giving of food when this has been taken in insufficient quantity, or by the change of circulation resultant on hot baths or application of mustard sheets, we must administer sedatives.

Chloral hydrate is the most valuable hypnotic we possess, producing sound sleep in those with the prodromata of mental disorder, and causing the most excited, troublesome patients to get as much sleep as we wish. Dr. Clouston gave it in 30-grain doses thrice daily for more than a week without interfering with appetite, digestion, or intestinal functions. To a most violently excited general paralytic he gave ʒj. every night, causing ten, twelve, or fourteen hours' sleep without any apparent ill effect. For simple insomnia he found ʒj. doses sufficient in most cases, and 30 grains usually caused sound sleep: he had never failed with chloral to overcome sleeplessness. From doses of 50 and 60 grains he had not had any bad results. Mr. Wadsworth found ʒi. doses, in porter, an excellent mode of giving it to obstinate patients refusing food and medicines, and that sleep, lasting from eight to ten hours, was produced.

Chloral does not appear, nor could this be expected, to have a direct curative effect in insanity; it causes a sleep whence the patient awakes with a good appetite, which, with corresponding digestion, is so essential in recent or maniacal attacks. My favourite formula for giving chloral is with tincture of orange peel in ʒij. of cinnamon water, and a little syrup added, if Ferris' syrup of chloral is not used.

Opium.—If the derivatives of opium be used, they should be at night only. Dr. Clouston ascertained that if given during the day opium soon loses its effect, that the pulse is lessened in strength, the average temperature diminishes,

the patients lose weight, and the vital powers are decreased. In long continued feeding cases a dose of morphia at bedtime is often very useful, and in melancholia and emotional insanity with depression it is sometimes invaluable. Acetate of morphia may be injected hypodermically with excellent effects when the patient will not swallow anything: a sleepless, restless, noisy, destructive, unwilling patient can easily be sent to sleep by this means; the moral effect is sometimes most valuable. I have found glycerine the best solvent for salts of morphia, because the solution neither dries up nor crystallizes (10 grains in a drachm.)

Cannabis Indica.—Dr. Clouston, before the introduction of chloral, most carefully investigated the effects of the various remedies then known, and ascertained that a combination of tincture of Cannabis Indica and bromide of potassium (half a drachm of each) was efficacious in allaying excitement and diminishing temperature in 90 per cent. of the patients to whom he gave the mixture, while the appetite and digestion were, so far from being interfered with, so good that the patients gained in weight, although the treatment of some cases was continued during nine months. This experience of Dr. Clouston is still important, inasmuch as we may not always be able to use chloral, and may in some cases wish to diminish excitement during the daytime and to limit the employment of chloral for obtaining sleep at night.

Bromide of Potassium has been already referred to. It remains to mention that it is a most valuable remedy for epilepsy. Dr. Clouston gave 25 grains of it thrice daily for two years to seventeen epileptics, with great improvement in their condition.

Iodide of Potassium in ʒj. doses has sometimes remarkably benefitted the milder cases of puerperal and climacteric insanity. In syphilitic cases, and where, we presume, there is some thickening of the cerebral membranes, the iodide, steadily given in full doses, does much good.

Ergot of Rye.—In the treatment of recurrent mania, chronic mania with lucid intervals, and in epileptic mania, Dr. Crichton Browne has found ergot of rye "almost uniformly efficacious in reducing excitement, in shortening attacks, in widening the intervals between them, occasionally in altogether preventing their recurrence, and in averting that perilous exhaustion by which excitement is so often succeeded." He gave the liquid extract in ʒj. or the tincture in ʒi—ij. doses every four hours when epileptic violence was existing, and says, "It exerts a prompt and energetic effect."

Digitalis is frequently found singularly useful in destructive cases, especially in general paresis. It is advisable, notwithstanding the large doses of drugs tolerated, as a rule, by the insane, to begin this in doses of not more than *m* x. of the tincture to a man, or *m* vi. to a woman; it is easy to watch its effects and to increase the doses if necessary and advisable to *m* xxx., lx., or even xc. Dr. Lockhart Robertson has found a combination of digitalis with morphia very efficacious in occasional violent attacks of excitement.

Calabar Bean.—In the excitement of general paresis, Dr. Crichton Browne has ascertained that the extract, in doses of gr. $\frac{1}{4}$ to gr. i. had a rapid and powerful calmative action. Observation of the condition of the pupils will be a valuable guide in the indications for the administration of the physostigma venenosum.

Whisky, in four-ounce doses, was found by Dr. Clouston to lower the temperature very much, to slightly quicken the pulse, and in many asthenic cases to calm the patients. Dr. Yellowlees writes, "In many cases a liberal addition of stimulants is the best sedative we can give."

Beef Tea was also examined as a therapeutic agent by Dr. Clouston, who observed that it slightly lowers the temperature, lowers and strengthens the pulse.

In the foregoing sketch I have endeavoured to bring together, in a very condensed form, some of the more salient points in the treatment of lunacy, as pursued by the most recent investigators. Had I been granted more time for the reading of this paper I would have outlined many other and important topics relating to the subject, such as the advantages as well as the drawbacks of domestic treatment, the merits of asylums, the relations between physical states and mental symptoms, the latency of disease in the insane, the removal of causes of

lunacy, restraint, the experiences of various authorities, the use of purgatives, general and local bleeding, counter-irritation, antimony, and mercury. Then I would have ventured to indicate some cautions and limits concerning certificates and the mode of examining patients, to draw attention to the risks to the sanity of households where patients are treated, and have mentioned the legal steps and precautions necessary with each place of treatment, whether at home, in hospitals, or in private or public asylums. My excuses for outlining the home care of lunacy before the members of this society are that much has been done of late to increase our knowledge of successful treatment, and that many of those who are fully occupied in general practice have little opportunity for investigating the deductions of those working in a special field.—*Practitioner.*

THE THERAPEUTICS OF EPILEPSY.

BY ALLAN MCLANE HAMILTON, M.D.

Visiting Physician to Epileptic and Paralytic Hospital, Blackwell's Island, New York City, etc.

The object of this paper is the discussion of the present method of treating that most discouraging and imperfectly understood form of disease, Epilepsy. I wish more particularly to consider the value of the bromides, and at the same time to detail recent investigations undertaken to support a statement I made at the last meeting of the American Neurological Association, where I advocated the *medium dose*, and endeavoured then to show that of late there is an unwise tendency to administer these drugs in dangerous quantities.

I may be pardoned, perhaps, in calling attention to certain practical points which may appear unimportant to some, but an experience gained from the management of a great many cases teaches me they are to be carefully considered in selecting a plan of treatment. These simple indications, I am convinced, are too often overlooked, even by painstaking and careful medical men. I allude to the necessity for discovering the exciting cause. I am every day made to feel that the idiopathic cases do not form so large a proportion as they were once thought to. With this belief I am satisfied that empiricism and routine management are bad methods. Any one who examines all his cases thoroughly will recognize the delicate shades in epilepsy, variations which are exhibited in other diseases presenting more pronounced and better defined symptoms; consequently there are evidences of pathological action, which are not always grouped alike, and consequently all cases are not to be treated in the same manner. I ascribe the moderate success I have had in the management of this disease to the recognition of these differences.

Not only may obstinate epilepsy result from masturbation, but it may be due to many of the diseases of women, and is produced by other eccentric irritations of various kinds, or by centric irritation, such as may be associated with toxæmia.

Sir Charles Locock (*Med. Times and Gazette*, May 23, 1853,) called attention to many cases that he had treated where uterine irritation was the exciting cause; and I think others have had the same experience. In one of Locock's cases the patient was affected particularly at the menstrual periods.

Some of these peripheral causes are curious in the extreme. Through the kindness of Dr. Gibney, of New York, I was enabled to see a child who had accidentally injured her ear with her parasol, the brass tip of which remained for some time imbedded in the external auditory meatus. As a result, convulsions of an epileptic character were caused, and it was not until some time afterward that the foreign body was discovered and removed. In another case I treated, the epilepsy was unmistakably due to a bad habit the woman had of wearing a number of heavy garments about her hips, which produced some uterine change. When this condition of affairs was noticed, and the skirts removed, she immediately recovered. At the root of many epilepsies, as well as other neuroses, are reflex causes—the starting point being the organs of digestion, or those contained in the pelvis. Of course there are varieties of epilepsy of an idiopathic nature, or others caused by traumatism or organic disease; and these will defy the best directed efforts of the physicians, and we can do nothing.

We should not lose sight of syphilitic epi-

lepsy where pain always precedes the attack. It is generally curable.

In prescribing for our patient there are five indications to observe :

1. Removal of exciting cause, if possible.
2. The diminution of exaggerated reflex susceptibility of the medulla.
3. Equalization of cranial circulation.
4. Abortion of paroxysms.
5. Improvement of general condition.

For the accomplishment of these, it is imperative that a judicious and discreet selection of drugs should be made ; and as those which are the most effective I may mention:

The Bromides : Sodium, Potassium, Calcium, Lithium, Iron.

Belladonna.

Digitalis.

Strychnine.

Ergot.

Arsenic.

Amyl Nitrite.

Tri-Nitro-Glycerine.

Cod Liver Oil.

I have not classified these remedies, as it is unnecessary to do so ; but will now say a word in regard to their usefulness :

No one drug can be declared a specific—as I am sorry to see has been done—and we must not be too eager to accept the sanguine results of certain over-enthusiastic authorities, and be governed thereby. I allude more especially to the almost universal use of the bromides, to the exclusion of everything else, and also to their employment in quantities, which often ruin the patients, and at any rate produce a condition of diminished vitality—which is inconsistent with any hope of success. Radcliffe's idea in this respect is a good one : "There is reason to believe that the therapeutics of convulsion must be based upon the notion that vital power has to be reinforced, and not upon the contrary opinion." What the proper dose is, has not been clearly settled by any one. There are neurologists who believe in toxic doses, and there are others who prescribe quantities which are almost small enough to be inert. In England it has been the custom to prefer the very small doses. I have seen the prescription of a very distinguished general practitioner, who thinks five grains of the bromide of potassium a sufficient dose. Ringer recommends from 30—60 grains in the day ; Radcliffe, 45 grains ; Russell Reynolds, 30—90 grains ; Bartholow, 30 — 240 ; and Hammond, 90 — 240 grains during the day.

Handfield Jones remarks that there is a great difference in the tolerance of individuals in regard to the bromides—some persons not being able to stand five grains, while others will not be affected by doses of less than forty grains in amount.

My own experience has taught me that the best effect can be gained by the repeated administration of sixty grains in the twenty-four hours. The larger doses produce rapid bromism, while a medium dose seems to be better appropriated, but will do just as much mischief in the way of bromism as the larger ones, if given for a length of time. My records show me that the average time for development of symptoms of this kind is about three months, while anæsthesia of the fauces is produced in a few weeks, or even a much shorter time ; and I agree with others that it is necessary to produce this condition before we can say that the medicine has produced its physiological effect. Brown-Séquard considers the appearance of acne to be an indication that the medicine has begun to do its work, in which opinion he is joined by Dr. Putnam-Jacobi. Voisin considers the "point of saturation to be indicated by the anæsthesia of the pharynx and nares, so that in one case nausea is not produced by titillation with a spoon, and in the other sneezing and weeping does not follow the introduction of a straw into the nasal cavity." I should consider the latter a rather severe test. According to Danton the bromides act as vascular medicaments, diminishing excito-motor power. They act on the unstriped muscular fibre, producing local anæmia and moderating excitation resulting from temporary or permanent congestion. "They are agents that pass very rapidly into the blood (Ringer), and consequently their effects are very immediate, and they accumulate till the point of saturation is reached before they are eliminated in anything like considerable amounts." We are all aware that repeated and large doses of these drugs are followed by

a most disagreeable and pernicious state of affairs. Voisin has referred to two forms of poisoning, which he has divided into the slow and rapid. In the first the complexion becomes muddy, the eyes sunken, sight and hearing poor, and memory obscure. The patient cannot write, and cannot express himself, as he forgets words—there is tremulousness. In the other variety of the *slow* form there is dementia, or delirium with maniacal outbursts. Ataxia is also a feature of this variety. In the *rapid* form—that with which we are most familiar—somnolence, headache, uncertain walk, difficulty of speech, loss of expression, "fishiness" of the eyes, drooling of saliva, etc., etc., are the ordinary symptoms.

Various grades of toxæmia, or even a state which Voisin calls the "cachexie bromique," and which terminates in a typhoid condition, may result from a reckless use of this drug.

As regards the variety of bromide, I think the sodic is the most reliable and stable; the potassic salt varying very much in strength. The others either have a tendency to deliquesce, or are expensive. It will be advisable to keep the solution in a tight-stoppered bottle, and have fresh quantities put up constantly, as it is very apt to undergo changes—in which the bromine is evolved. And now a word regarding the time of administration. It has been shown repeatedly that these salts are much better absorbed when the stomach is empty. I have found also that a heavy dose at night is apt to do more good than if the amount prescribed is equally divided up through the day. In a great many patients I have found the attacks to occur at the waking hour, and I suppose this is due to the sudden change in the cerebral circulation. A mild diffusive stimulant has overcome this, and in many cases warded off the attack. I direct my patients who have their convulsion at this time to keep a glass of sherry or a small quantity of Spts. Ammoniæ Aromaticus near at hand, to be taken before arising. Cold douches to the head are valuable. If the attacks be irregular, it will be found necessary to divide up the dose.

The treatment of the disease in women should be directed as well to the pelvic organs. It will be found that the bromides will markedly affect the flow, and relieve the pain or uneasiness which is connected with the menstrual period. Locally, I have found that cold applied for a few minutes daily over the ovaries, will modify the attacks should they be connected with irritation of any of the pelvic viscera. The progress of the disease should be soon modified by the doses I have recommended, and it will be seen by the table condensed from that prepared by Dr. Hollis and published in the *British Medical Journal*, that even smaller doses modified or cured the majority of the cases he cites. At the Epileptic and Paralytic Hospital, where most of the cases are the very worst that can be collected as regards chronicity, I find that sixty grains a day will cut short the attacks of a great many patients, and I have cured a number of private patients by this method. Dr. Hollis' cases were not selected, and are evidently hospital patients, like my own. (We omit the tabulations.)

The other observations are selected from my note book, and are illustrative of the efficacy of the dose I have advocated. Bromism occurred in spite of all I could do in most of them, though it was a mild form and under control. They were all patients of the better class, and, of course, had all the advantages of comfortable homes, attentive friends, substantial food and good air, although many of them were inclined to over-eating, as in fact all epileptics are. In this respect there is an advantage in favour of the poorer patients, who cannot obtain rich food.—*Chicago Med. Jour. and Examiner.*

(*To be continued.*)

THE STRAND TO BE PAVED WITH WOOD.—It is with great satisfaction we chronicle the success of the movement to secure immunity from noise for the Strand by paving that thoroughfare with wood. We make no apology for having fought the *local* battle in these columns, because the principle asserted is one of universal application. Wherever there is noise from a crowded and constant traffic, wood-paving is not only a merciful precaution, but a necessity. The wear and waste of nerve-power, fretted away by ceaseless irritation during the day and sleeplessness at night, is so serious, that a remedy at any price is demanded by common prudence, and a remedy which will remove the cause must be priceless.—*London Lancet.*

NOTES RELATIVE TO NOCTURNAL INCONTINENCE OF URINE, AND ITS TREATMENT.

BY WILLIAM A. HAMMOND, M.D.,

Professor of Diseases of the Mind and Nervous System in the University of New York, etc.

Perhaps no one affection of childhood is attended with more inconvenience and discomfort than nocturnal enuresis, and few are so obstinate in resisting the treatment sanctioned by routine and tradition. For several years past I have given considerable attention to the subject, and with the hope that the results obtained may be of value to the profession, I am induced to communicate them in brief.

From several concomitant circumstances, I am led to the belief that in the *beginning*, when not the result of carelessness in not taking the child from bed in order that the bladder may be properly emptied, nocturnal incontinence of urine is often either choreic or epileptic in its origin. In a small number of cases, children do not acquire the power of retaining the urine through the night; but setting these aside, as well as those in which education has not been attempted, I am satisfied of the presence of either the choreic or epileptic condition in the great majority of the remaining cases. It is not necessary that there should be other manifestations of these morbid states in order that acceptance should be accorded to this view, for it is well known that there are many forms of aborted attacks of both diseases. Nevertheless, it will often be found that there are other phenomena which serve to indicate unerringly the true state of the case. Among these may be mentioned grinding of the teeth, twitching of the muscles, rolling of the eye-balls, stupor, moaning, night terrors, etc., as well as fully developed symptoms occurring during wakefulness. But however it may originate, nocturnal incontinence of urine is very apt to become habitual even after the primary cause has disappeared, and these causes are not infrequently met with in adults in whom there appears to be during sleep an absolute insensibility to the excitation caused by repletion of the bladder. Indeed, a few cases have come under my notice in which this insensibility existed during wakefulness, there being no other abnormal phenomenon. The first intimation which the patient in such instances experiences is the contact of the warm urine with the external surface of the body, and that sensation is at once sufficient to arouse the will into the action of contracting the sphincter. There is, therefore, no absolute paralysis of the sphincter, but there is an entire loss in it of the power to be reflectively, or, more properly, especially controlled. One of these cases was that of a gentleman of social tastes whose position was rendered extremely miserable by the existence of the weakness in question. Society had closed doors for him, places of amusement were out of the question, and even business could not be conducted without the inevitable India-rubber urinal which he was obliged to wear to avoid absolute disgrace. In his early youth, this gentlemen was subject to chorea, and it was then that the incontinence of urine made its appearance. The chorea had long since disappeared, but the urinary trouble remained in spite of all means adopted for its cure.

But without further discussion of the pathology of the affection, I pass at once to the practical points of its treatment:

From whatever cause induced, nocturnal incontinence of urine consists in an excessively irritable condition of the sphincter of the bladder. The usual relation existing between the two spinal functions, the one contracting the sphincter and the other relaxing it, is disturbed, and the latter preponderates. There is accordingly an excessive degree of excitability in the direction of relaxation, and the immediate seat of the cause is doubtless to be found in that part of the spinal cord in nervous relation with the part in question. It is to the spinal cord, therefore, that our therapeutical measures should be directed, and these should consist in the employment of those means which are known to lessen the excitability of this nerve centre.

I have found the following plan of treatment so efficacious that, though there are others which are at times followed by success, I have for several years past adopted it exclusively:

1. Supposing the patient, as is generally the case, to be a child, the bladder should be

emptied on going to bed, and then two or three times afterwards the patient should be taken up and again made to urinate.

2. Sleeping on the back should be prevented. The prone position is one which, of all others, increases the amount of blood in the cord, and hence augments its irritability.

3. The following prescription should be given for several months—three or four at least—if stopped sooner the affection is liable to return: R. Zinci bromidi, ʒss. Ergotae ext. fl., ʒiv. M. ft. sol. Dose, ten drops three times a day, increased five drops every month Thus for the first month ten drops are taken three times a day; for the second month, fifteen drops three times a day; for the third, twenty drops, and so on. It is preferably administered after meals, being less apt then to excite nausea or vomiting. Should either of those symptoms prove troublesome, the ensuing two or three doses may be somewhat smaller.

Children of from four to twelve years of age can take the foregoing quantities without disturbance of the general health, and even for adults it is not often necessary to increase them except in the way of augmenting the doses by five drops every two weeks instead of every month.

It will almost invariably be found that by these means the incontinence of urine is cured and the general health of the patient much improved, but occasionally a case is met with in which the bromide of zinc is not well tolerated. It proves irritating to the stomach, and induces a peculiar cachexia, characterized by emaciation, paleness of the complexion, a dull expression of the face, dryness and roughness of the skin, obstinate constipation, etc. In such instances the bromide of iron may be substituted for the zinc compound with advantage. It should be given in the form of a syrup (ferri bromidi, ʒi., syrupus simplicis, ʒvi.), in doses beginning with five grains three times a day, gradually increased to fifteen or twenty. A teaspoonful of the syrup, made according to the above formula, contains about ten grains of the bromide of iron. The dose, therefore, to start with, is half a teaspoonful three times a day, increased gradually, till at the end of three or four months the patient is taking a teaspoonful and a half or two teaspoonfuls of the medicine. With each dose of the bromide of iron the fluid extract of ergot should be given separately, and like it should be gradually increased from ten drops three times a day to a drachm as often. The two medicines can not be kept mixed together for any length of time without the bromide of iron being decomposed and the ergot also injured.

In the nocturnal incontinence of urine occurring in adults the principles of treatment should be similar, but instead of the bromide of zinc the bromide of either potassium, sodium, or calcium should be employed, and it is not necessary to give the remedy in augmenting doses. One ounce of either of the compounds mentioned should be dissolved in four fluid ounces of the fluid extract of ergot, and of the mixture a teaspoonful should be given thrice daily. In extreme cases blisters to the skin are valuable adjuncts, and in several recent instances I have made successful use of the actual cautery to the dorso-lumbar region. As in children, the treatment must be directed to the emptying of the bladder late at night before retiring to bed, the prone position must as scrupulously be avoided, and the remedies should be continued for several months.

It must be clearly understood that these notes do not refer to the incontinence of urine which results from paralysis of the sphincter of the bladder, so frequent a phenomenon in certain organic diseases of the spinal cord. In such cases, though ergot is, to a certain extent, useful, the main reliance is to be placed upon the preparations of belladonna.

There is also a hysterical incontinence of urine, which, though not embraced within the present category, I may say yields readily to the bromides and ergot as recommended above. If in such cases there is reason to believe that the sphincter is paralyzed (and the fact may be definitely known by the inability of the will to constrict the sphincter), a few drops of the tincture of belladonna—ten or twelve, for instance—may be administered in conjunction with the other remedies, and counter-irritation may be advantageously applied to the spine.—*Ohio Medical and Surgical Journal.*

SYMPTOMS OF ALBUMINURIA.

BY T. LAUDER BRUNTON, M.D., F.R.S.

The symptoms of albuminuria are those of anæmia, and we often suspect the presence of the disease from the mere look of the patient before we have addressed a question to him or applied a single instrument of physical diagnosis. There is not only paleness from the general want of blood, but there is a greater tendency to œdema than in other forms of anæmia, so that the face is not only pale, but puffy, pasty, or doughy looking, with a tendency to swelling about the lower eyelids. The ankles and shins are frequently œdematous and pit on pressure, and there may also be accumulations of fluid in one or other of the serous cavities. These appearances in a patient at once arouse a suspicion of albuminuria, and we proceed to test them by examining the urine. In a state of health this secretion should be absolutely free from albumen. We detect the presence of this abnormal constituent in two ways: 1st. By boiling; and, 2nd, by adding nitric acid. On boiling urine containing albumen, coagulation takes place, and according to the quantity present we have either a faint haze giving an opalescence to the liquid, a heavy coagulum, or any intermediate condition between these two. There are some fallacies in this test, however, which require attention, for ignorance of them may lead us to imagine that there is no albumen when it is really present, or to fancy it there when the urine is completely free from it. The first fallacy is that serum-albumen forms compounds both with alkalis and acids, to which the names of alkali-albumen and acid-albumen have been given respectively. Now either of these compounds are coagulated by heat, and although serum-albumen itself is readily coagulated by boiling, yet if acids or alkalis are present when we begin to heat it, the very warmth of the liquid, as we gradually raise its temperature, causes the albumen to combine with the acids or alkalis and form acid-albumen, or alkali-albumen. Thus it may happen that by the time we reach the temperature at which the albumen should be precipitated it is no longer present in its original condition, its combinations being already complete.

Thus, if the urine be very strongly acid, or very strongly alkaline, we may get these compounds formed, and then heat produces no coagulation, although albumen is present. We therefore ascertain the reaction of the urine by means of litmus paper before applying heat. As the tissues of the body are all alkaline, it is very unlikely that the urine will contain so much free acid as to produce acid-albumen, and indeed such a condition is almost never found except in persons who have been taking large quantities of mineral acids. In such a case we would add sufficient alkali merely to neutralise the acid before we boiled the urine, but this is so rarely necessary that we generally disregard this source of error. Excessive alkalinity, however, is not so uncommon, and we very frequently have to add a few drops of acetic acid to the urine so as to render it slightly acid before boiling.

This addition of acid, however, serves a double purpose, and not only enables us to detect the albumen more certainly when it is present, but prevents us from mistaking other things for it when it is absent.

In some urines alkaline phosphates or carbonates are precipitated by heat and may be mistaken for albumen, but a drop or two of acetic or nitric acid prevents their precipitation, or if added after they have already been thrown down dissolves them again and causes the urine which they have clouded to become clear again.

It is thus evident that heat alone without acid is an insufficient test for albumen, and nitric acid alone without heat is also unsatisfactory and may be deceptive; but nitric acid coagulates albumen and causes a haze or coagulum just like heat. If the urine contain a large quantity of urea, the nitric acid may cause the formation of a crystalline precipitate of nitrate of urea, which is, however, but rarely mistaken for albumen. But if urates be present in large proportion, one is much more likely to fall into error, for the nitric acid drives out uric acid from its combinations with soda or potash, and free uric acid being much less soluble than urates a precipitate is formed which is much more likely than the urea one to be mistaken for albumen. A little heat now applied to the urine causes either urea or uric

acid to redissolve, and the urine clouded by them to clear; but it has no effect on the haze or coagulum produced by albumen.

In testing for albumen, then, the best method of proceeding is to allow three or four drops of nitric acid to trickle down the side of the test tube containing the urine. If no haze appears we may conclude that the urine is free from albumen. It won't do to pour in acid until the test tube is half full, for it is possible that if only a little albumen is present it may be converted into acid-albumen and dissolved by the concentrated acid. If a cloudiness appears we must not at once conclude that it is due to albumen, but must warm the urine over a spirit lamp. If it is really albuminous the opacity will remain, but if the cloud is due to urea or uric acid it will disappear.

So much for the symptoms of albuminuria, which are paleness and pastiness of the face, a tendency to œdema and dropsy, complaints of weakness, shortness of breath, dyspepsia, nervous symptoms, and, I may add, occasionally palpitation.—*Practitioner.*

(*To be continued.*)

ON THE EXPECTANT TREATMENT OF CHOREA.

BY E. B. GRAY, M.D.; AND H. M. TUCKWELL, M.D.,

Physicians to the Radcliffe Infirmary, Oxford.

Nearly five years have elapsed since we (*The Lancet*) published a series of cases of chorea, in the treatment of which all medicines had been withheld, and reliance had been placed solely on nursing and good diet. We then showed by a comparison of the average duration of cases treated with arsenic and other routine drugs, that the expectant treatment was at least as successful as the treatment by medicine. Since that time we have continued to work in the same direction, and are now able to record twenty more cases, in which the whole natural duration of the disease uninfluenced by medicine has been accurately estimated. In every instance the parents or friends were closely questioned as to the earliest appearance of twitching, and the patient was kept under observation till all irregular movements had ceased.

* * * * * *

Remarks.—In our former communication we showed that the average duration of chorea treated on the expectant plan was, as far as our observations had then gone, from ten to eleven weeks; and that the average duration of chorea treated with arsenic in gradually increasing doses, according to Begbie's plan, was likewise from ten to eleven weeks, the difference, if any, being slightly in favour of the expectant plan. We also compared these results with the estimate of Dr Hillier, who, in his work on Diseases of Children, gives the mean duration of thirty cases treated with arsenic, &c., as "about ten weeks;" and with Sée's estimate of "sixty-nine days," as the average duration of 117 cases treated with various medicines.

Of the twenty cases above recorded, the average duration is found to be rather over nine weeks, a still more favourable result than that before given. Or, taking the average of the whole thirty-eight cases published in this and the previous paper, we find nine weeks and six days to be the average duration of chorea treated without medicine. It is singular that this corresponds with Sée's average to a day.

Case 20 is worthy of special notice, in that it presented to view many of the worst features of chorea in its fatal form. The convulsions, so violent as to jerk the child over a high wall of pillows, like a fish, on to the floor, the body sore and fissured from friction, the rapid wasting, the wild delirium—were just the symptoms present in other cases which we have seen die in this infirmary, when plied with all sorts of active medicines. A very noteworthy point is the rapid improvement which took place naturally on the ninth and tenth days of the attack. Had a believer in arsenic been called in on the evening of the ninth day, and ordered large doses of Fowler's solution, the return of sleep and subsidence of the convulsions would, doubtless, have been attributed to the arsenic or to any other drug—bromide of potassium, succus conii, Calabar bean, zinc, iron, chloral, chloroform, &c.—which might have been ordered at that lucky, or unlucky, moment. This natural and restorative sleep might well be compared to the sleep which ushers in recovery in delirium tremens, and comes best of itself when a patient is well nursed and nourished, and kept free from all kinds of narcotics. An isolated ward; a good nurse; a large crib, well padded round, and walled in with pillows; plenty of nutritious food, without stimulants,—on these we shall feel inclined to rely in the treatment of severe chorea, till we obtain more conclusive evidence than has yet been adduced that the disease can, in the slightest degree, be favourably influenced by any medicine as yet discovered.—*London Lancet.*

Surgery.

DISARTICULATION OF THE KNEE-JOINT, LUXATED BACKWARD IN CONSEQUENCE OF CHRONIC INFLAMMATION, &c.

CLINICAL LECTURE BY PROFESSOR LEWIS A. SAYRE, M.D.

CASE 1.—Mary Cashen, aged twelve years, resides in First street, New York. The patient's friends state that when she was seven years of age she fell from a sofa, striking on her left knee, which accident was immediately followed by a severe inflammation of that joint. It swelled immensely, and in a few months became much distorted and the leg contracted, when she was taken to Dr. Knight's hospital, on Forty-second street, where she was treated for a long time by liniments, plasters, etc., but no extension was ever applied to it to prevent its muscular contraction. She was afterward taken to the Woman's Hospital, where a female surgeon divided the tendons, but was not successful in straightening the leg. Abscesses formed in and around the joint, opening in various positions, as you see by the different, numerous cicatrices around the limb, both above the knee, over the patella, and several more of them, as you observe, down the leg, some inches below the calf, and on the lower third of the tibia, through which a probe passes, but does not come in contact with dead bone, with the single exception of the sinus over the patella. You see the leg in its present position as she lies on the table before you. I have not yet administered the anæsthetic, for the reason that there are several important points to which I wish to draw your attention. You observe that the position of the leg corresponds exactly to the drawings and the various plaster models that I have shown to you in my lectures on chronic diseases of the knee-joint.

Here is a curious case, showing the principles that I have already laid down to you as of universal application in the treatment of all diseases of the joints, namely, extension and counter-extension, for the purpose of overcoming reflex muscular contraction. I suppose you think that I am always *dinging* on the same subject; but you will acknowledge that you cannot have it dinged into your head too often, when you see such results as this every day brought before us. If it had been dinged into the heads of practitioners years ago, it would have saved those deformities which are daily presented to us. Remember, now and forever, that in all diseased joints, no matter what joint—ankle, knee, hip, back, any joint—one of the necessary results of all inflammation is reflex muscular contraction; and that the muscles, in their contraction, distort and disfigure the limb in one way and another, according to the strength and power of the muscles involved in the contraction; that the muscles, distorting the limb one way or another, according to their strength, guide the deformity according to their superior capacity for contraction. That is all that there is about it. Besides the distortion so caused, the muscles, by this very compression and contraction, compel the parts to be pressed together more than they should be, and the constant, continued pressure on the parts interferes with the normal circulation of the blood in these parts, and absorption takes place as a consequence of the pressure. Consequently, the bones that are being thus brought together firmly, on account of muscular contraction, are absorbed more rapidly at the point of pressure than at any other point. This is the principal means of causing the bone's displacement. In this particular case, the knee is completely luxated backward, and rotated outward. In every one of these old chronically diseased knees you find the sub-luxation with the external rotation which you see in this case. The reason why it is rotated outwardly is on account of the constant contraction of the biceps muscle, which, having only one single point of action, is externally pressing at one particular spot, and absorption takes place more rapidly than on the inner side, although on the inner side there are four muscles acting continuously. Yet, as they have different points of attachment, the points of pressure are changed. Thus the parts never become so continuously irritated as if the pressure were persistent, or on one particular spot. At least, that is the only way I can account for this form of rotation.

In this case you will observe that in consequence of the long continuance of the disease, and the subsequent absorption of bone tissue, the luxation is made complete instead of being partial, as is usual in most cases.

In the treatment of these cases, no mat-

ter what your constitutional treatment is, if you believe that the child is poisoned by some constitutional taint, get it out of the child; there are a dozen ways, but your local treatment is necessary. The indication in all diseases of the joint is to overcome the tendency to contraction by extension and counter-extension. If the patient gets well, he will get well with a useful limb. Neglect this treatment, and the result will be a useless limb, as you see here.

In our patient, as she is before you now, you see that there are several sinuses on the thigh and over and beyond the knee, some three or four inches down on the tibia, through which the probe passes with great readiness. The flexible probe passes up the thigh beyond the popliteal space, and escapes some three or four inches up in the knee. One opening in the patella passes down to diseased bone. Through this opening, she says, some carious bone escaped, and there is still some neerosis going on, but not to any great extent. Water injected into any one of these sinuses escapes from the others, showing that they connect; but only the one through the patella leads to dead bone.

Now, if this little child had been operated on in proper time, it would be perfectly justifiable to exsect this knee-joint. But the leg is so much shorter than the other that if I exsected it, I should only make her a little short leg, five or six inches shorter than the other. She might have some sort of an artificial foot constructed, but to keep such a foot in repair would cost more money than she can command. Without it, her mode of progression would be of the dot-and-go-one sort. But inasmuch as this girl will have to earn her own living, and as the leg is already so short, and more bone would be taken away in the operation, though she has a good foot below, I doubt very much the propriety of attempting an exsection. The next thing is amputation, and where to do it.

If there is much disease in the thigh, it will become a necessity to amputate at the thigh. It seems to me that nature has nearly cured the disease by exfoliation, and that this little discharge from the upper portion of the sinus, around the thigh, must come from the leg below; and when I press my hand upon her femur, in this manner, against the end—you see she has a good end—the patella is turned around, over the end of the condyles of the femur, in just the position to make a good stump; and if it was perfectly healthy, as a matter of course, this would be the best thing to do. If no dead bone exists in the femur, I think a stump can be formed with little trouble. I press with firmness upon the patella, and get no indication of pain. I have, therefore, made up my mind simply to disarticulate this leg from its new attachment behind the knee-joint. It is not properly an amputation at the knee-joint, because the leg is dislocated, and simply attached to the popliteal space; and when I hold the femur firmly, you can all probably see that the leg has a certain amount of motion, showing merely that fleshy attachments exist to this new articular facet. I propose to make two lateral skin flaps, turn them aside, disarticulate the leg, and bring the flaps together on the posterior side. It is barely possible that the bone may be so diseased that we shall be compelled to perform amputation higher up.

I believe the girl's chances will be bettered by simply cutting away this useless appendage. The suppuration, which is caused by the abscess burrowing in the leg, is exhausting her, and the sinuses will, of course, have a free drainage from the new opening we are going to make; then they will close up.

Dr. Minor asks me why I do not exsect this knee, Perhaps he did not understand me when I gave my reasons before. If she were a millionaire, as I do not think she is, she could afford to get an artificial leg, and a fancy foot to it, but it would cost too much to keep it in repair all the time. The diseased leg is already four inches shorter than the other, and to take off two inches more would leave her with a little short leg, utterly useless for locomotion without some fancy apparatus, which she cannot afford. With the stump that I propose to make she could wear a peg leg, and be enabled to earn her living, and it would be more economical for her; that is one reason; and another reason is the risk in the operation. There is always some danger in the exsection of a knee in a broken-down constitution like this: and opening the cancellous structure of bone is, of course, attended with more or less danger. In a broken-down child, with a leg fixed as hers is (she is now 12 years old, and five months sick, and pretty well used up by constant suppuration), I would feel that there is greater risk

in making an exsection of the bone than I do in simply disarticulating and taking the limb away from its false attachment. These are the reasons, Doctor; are they satisfactory?

Dr. Minor—"They are."

Dr. Sayre—"Thank you."

The operation was performed by making the usual lateral skin flaps, the incisions commencing at a point slightly below the insertion of the ligamentum patellæ, anteriorly, and terminating at the popliteal space, posteriorly. The remains of the patella were luxated so far forward, and so firmly attached to the condyles of the femur, as to make an excellent end to the stump, and to cause the flaps to meet posteriorly. The posterior part of the femur, between the condyles, was found to be completely eroded, and the end of the tibia also somewhat damaged. Some difficulty was experienced in taking up the arteries, not only on account of their not spurting (Esmarch's bandage was used in this operation), but also on account of their diminished calibre.

Dr. Sayre said of this :—

The artery tied is so very small that I have some suspicions about its being the only one there. If it is the only large artery, it is the smallest popliteal artery that I have ever seen in a child twelve years old. It is barely possible that it may be the only artery which Dr. Pell has put a string around, yet it is so small that I can hardly persuade myself that it is the main vessel.

Now, you will observe what a beautiful stump is made by this operation. There will be simply a linear cicatrix on the posterior part of the leg when the wound is healed. The attachment of the patella is not at all disturbed. It remains fastened to the end of the femur, where it has been so many years since the leg was luxated backward. I therefore leave things as they are, and bring those stitches together, and leave a little hole at the bottom part for the drainage vessels to pass through. You can all see that there is a ligature on the popliteal artery, The only way in which I can account for its extremely small size is the pressure of the leg back against it.

I now proceed to put in my stitches and draw these adhesive strips between the stitches. I always cut my adhesive strips narrow, so that they lie between the stitches and do not have to be removed. At the end of forty-eight hours I take the scissors and nick the stitches, and remove them, leaving the adhesive plasters to retain the flaps in position till the recovery is perfect. This may be called, emphatically, a bloodless operation, according to Esmarch's plan, hardly ten drops of blood being lost.

Case 2.—E. K., aged twelve months. Inflammation of the knee-joint. Cause unknown. Mother noticed the leg slightly bent at the knee, backward and laterally, some four months ago.

Dr. Sayre—Four months ago, from some cause, the mother knows not what, the child's knee-joint became involved, and even in this little baby you will observe that this characteristic eversion of the foot is beginning to occur. Of course, in a little plump young one like this, you cannot see the deformity so distinctly, but you can see the flexion and eversion, and the leg beginning to be turned outward.

What do you require for the purpose of rectifying these two different phases of the deformity? Simply what I am now applying, extension, and at the same time lifting the leg forward by an extending force, posteriorly; first extending the limb as you now see I am doing; and now, while I pull the leg downward, I put my hand posteriorly, and bring the leg forward, so as to overcome this tendency to sub-luxation. You see what a change I have made already in that child's leg. Now, the proper thing to do for this little fellow is to apply two forces, as I have indicated, and these two forces acting in conjunction give perfect and instant relief as soon as you have made the angle of extension in exactly the right direction.

The wise reviewer of my book, in the *Archives of Clinical Surgery*, states that he cannot understand how I can ever reduce a deformed knee-joint by making the extension in the line as represented in the engraving on page 200 of my book. Well, it is simply because that wise man has not read the book with much care, or he would have certainly learned how it could be done. I tried to state as distinctly as possible, that the line of extension should be made in the particular form which gives the most perfect ease to the patient. Whether the extension is made in this, that, or the other direction, it matters not; you will soon find out the

direction of extension which will give your patient the most perfect rest. You change the direction of your extension as the limb changes its position, until you get it perfectly straight at last, and then it is perfectly fit to apply the instrument, by means of which the patient is enabled to go about out of doors and exercise. I had hoped that I had made the explanation in my book perfectly clear, without the necessity of making numberless illustrations to illustrate every case that comes up. But it can all be expressed in a single sentence: The extension should be made in the line of the deformity, changing it by degrees until the limb is straightened. I hope that you will have intelligence to comprehend that.

I have not got that leg in the proper position as you will observe. Well now, I will fix it in a cheap and economical way, by taking a newspaper and making a couple of splints out of it by folding the paper in ten or twenty thicknesses. The splints are about the length of the child's leg, and two inches broad. These I cover with adhesive plaster, sticky side out, so as to cause it to adhere to the leg. Then with a roller bandage I fasten these splints to the leg, one in front and the other behind, allowing the splints to face in as the bandage follows up the leg, so as to cause them to lie evenly. On reaching the knee I cause my assistant to make extension, then I continue the bandage the rest of the way up the limb. The plaster, you will observe, prevents slipping, and the paper splint, though very weak, has yet sufficient strength to keep up the extension. But in order to make the limb perfectly secure, I take these two strips of tin, which are roughly perforated, so as to present jagged surfaces to engage in the bandages above and below, and utterly prevent slipping; an idea which is due I believe to Dr. Fluher, formerly one of the house staff of this hospital. One such strip is placed over the limb in front and another behind, being secured by a roller bandage. So long as they are held firmly in position, and their parallelism maintained by their adhesion to the splint below and the roller above, motion of the knee is impossible.

You now observe that this child's limb is straight, and at the same time I can press against his heels, moving his body without giving the slightest pain. He is, therefore, in fit condition to be carried about, getting the advantage of out-door exercise, and his leg is without the slightest degree of deformity. How long it will take for the child to recover no one can say. The after treatment must be conducted according to the necessity of the case; but the principle of extension and counter-extension is one that you must never forget.

In the contrast between these two children, you see in the one case that the limb has been rendered perfectly natural in position. Had the same principle been applied to the first case, it would have saved the necessity of that amputation, thus sacrificing a limb that would now have been useful. She would have been saved twelve years of agonising suffering, and prostration from excessive suppuration, which she has gone through.—*Medical and Surgical Record.*

TREATMENT OF ACNE.

La France Médicale says:—M. Rodet, of Lyons, prescribes the following treatment in acne. Friction is to be made every evening over the acne papules, with the following ointment:

℞ Adipis, ʒv;
Sulphuris,
Tannin, āā gr. viij ad xv.—M.

In the morning the face is to be bathed with warm water to which a little bay rum has been added, the proportion being increased from day to day until it amounts to one-third. M. Doyen, of Lyons, recommends bathing with the following:

℞ Aq. destillat., fʒx;
Hydrarg. bichlor., gr. xxx;
Tinct. lavandulæ, fʒiiss.—M.

Mr. Hardy uses this formula:

℞ Aquæ, fʒx;
Potassii sulphuret.,
Tinct. benzoini, āā ʒiiss.—M.

Two teaspoonfuls in a glass of warm water to be used externally. For the treatment of acne erythematosum (*couperose*), Hardy suggests the following:

℞ Hydrarg. protiod., gr. iss ad. ii;
Ung. aq. rosæ, ʒiv.—M.

In the fluid and concrete forms of sebaceous acne, Hardy uses the following glycerole:

℞ Glycerine, fʒxv;
Aquæ rosæ, fʒiiiss;

Tannin, ʒi.—M. Sig.—Use externally.—*Philadelphia Medical Times.*

AMPUTATION OF THE ARM BY MEANS OF THE ELASTIC LIGATURE.

In the *Lyon Médicale* this operation is recorded as performed by Prof. O. G. Silvestri, of Vicenza. Surgeons naturally hesitate to perform resection or amputation in cases of white swelling of the knee or elbow. The process not being arrested on account of inadequate remedial measures, the patient loses strength, and becomes extremely emaciated; it is at this period of the disease that the operation is usually performed, though the general condition of the patient would almost contraindicate any active interference.

Silvestri, who first introduced the elastic compression known under the name of "Esmarch's method," has proposed the employment of the elastic ligature in the above cases, and has published a case in which the result was most gratifying, It was that of a young man, twenty-two years old, of a scrofulous constitution, who for six months had suffered from caries of the sixth, seventh, eighth, and ninth ribs, in their convexities; there was complete caries of the left elbow-joint, and the right hand was threatened with the same condition. There were high fever, colliquative sweats, and diarrhœa, which would yield to no treatment; absolute anorexia, intense pains in the elbow, and extreme emaciation. Though the condition of the elbow-joint indicated an operation, the feebleness of the patient contraindicated it. But, as the patient was urgent to have something done, Silvestri, with the consent of his colleagues, resolved to apply the elastic ligature.

On the 8th of May, 1874, accordingly, the patient's arm, below the insertion of the deltoid, was enveloped with a gum-elastic band, about two millemetres in diameter, and covered with silk thread. Twenty turns of the band were made, the latter being always kept in its greatest extension, and the two ends were tied with a silk band. The patient received seven and a half grammes of chloral, which produced sleep. No pain was experienced. The pressure exercised, calculated according to the elasticity of the band, was equal to twenty-one kilogrammes at each point, consequently forty-two kilogrammes for the whole diameter. The pulse, at the time of operation, was 100; five hours after, 112; and six hours after, 100. There was no fever on the following day; the sweats and diarrhœa ceased, and the appetite returned. Milk diet was ordered, under which the patient soon began to gain flesh.

Gradually the bands penetrated the soft tissues, and at the same time lost their parallelism. The circumference of the arm, where the bands were applied, was eighteen centimetres at the time of operation; four days after it was eleven centimetres; six days after, ten and a half centimetres, and ten centimetres on the 26th of May. On the evening of May 29th it was found to be nine and one-quarter centimetres, and on June 3rd it was reduced to eight centimetres.

On June 18th the arm and bands fell off spontaneously, the process having lasted forty days. The stump, in its upper portion, had cicatrized. The remaining portion was dressed with dry lint. The further course of the case was favourable.

The author draws the following conclusions:

1. The compression exercised intercepts all communication between the limb and the rest of the body; the morbid material from the sea of disease cannot, therefore, enter the circulation; furthermore, drainage from the morbid *foyer* ceases.
2. There is no loss of blood.
3. Cicatrization takes place slowly, and the patient bears it easily.
4. The patient's forces are economized.

The author does not hesitate to employ this method in all those cases where the general condition of the patient offers no prospect of success to the performance of a bloody operation—*N. Y. Medical Journal.*

Exsection of the Pancreas.—In the *American Medical Weekly* for November 11 is reported a case of Western surgery which we believe stands unrivalled, although Dr. Justin, who operated, must share the credit not only with Dr. B. B. Allen, of Sebastopol, California, who attended to and reports the case, but also with the unknown individual who handled the knife so skilfully, and with the mule-like obstinacy of the constitution of the patient operated upon. The case was that of an Indian who was stabbed in a number of places, from one of which the pancreas had protruded twelve hours before the arrival of the physician. As this protruded part was gangrenous, the remaining seven inches were exsected. The report of the case was made twenty-one days after operation; at which time the ligatures had come away and the wounds completely cicatrized, the patient being to all observation well.—*Phil. Med. Times.*

Midwifery.

THE RELATIONS OF ALBUMINURIA TO PREGNANCY.

BY W. H. MARTIN, M.D.

(*Excerpt from Proceedings of Medical Society, King's Co., N.Y.*)

The title of this paper to be accurate should be less comprehensive; as it is my purpose merely to relate a case in illustration of the following propositions :—

I. That pregnancy in its earliest stages may induce albuminuria.*

II. That, inasmuch as this effect is apparent long before the uterus is sufficiently enlarged to interfere, by its size, with the renal circulation, the influence of pregnancy in producing albuminuria must be vital and not mechanical.

III. That in some cases the death of the ovum, even before its removal from the uterus, will relieve uræmic symptoms that had previously been severe and progressive.

In October, 1871, Mrs. ——, of this city, was attacked, at the end of the eighth month of her third pregnancy, with uræmic convulsions. She was delivered of a living child by the late Dr. H. S. Smith, and, although for a time in an apparently desperate condition, made a perfect recovery. The albuminuria had been recognized early (*how* early, I regret I am unable to say), and had been treated by Dr. Smith with his usual prompt thoroughness. In *five* weeks from the delivery the doctor's notes report the urine normal and the lady perfectly well.

In April, 1873—having passed a single period only—Mrs. —— consulted Dr. Smith for relief from distressing headache, disturbances of vision, nausea, etc. The doctor, discovering albumen in the urine (I find no reference to casts) applied the usual remedies without benefit, and as he refused to interfere further at this early period, she, in her desperation, as she says, went to some quack in New York city, who—according to her own very intelligent, and, I think, reliable account—introduced a stiff sound into the uterus once every week for seven successive weeks. The first application was attended with slight hæmorrhage, and followed by a watery flow which lasted some hours. The other applications had no result of any kind, except the seventh, which was followed by violent hæmorrhage, and the next day she was delivered of what Dr. Smith considered a three-months' fœtus. Mrs. —— assures me (and Dr. Smith corroborated her statement) that after the *first* application of the sound, the symptoms, which had been so severe as to urge her to the dangerous expedient of consulting a quack, disappeared, so that for the five weeks previous to her delivery she felt almost well. Albumen and casts had disappeared from her urine the first time that Dr. Smith examined it after her recovery.

She remained perfectly well and perfectly regular until May, 1875, when she missed a period. Albumen appeared in the urine, and she suffered from headache and nausea to such an extent that Dr. Smith, after consultation, resorted to the use of the sound, and in June, relieved her of what he pronounced to be a *two*-months' ovum. Although she had severe flooding she recovered thoroughly and rapidly. The examination of the urine, in which Dr. Smith was assisted by Dr. Segur, showed a perfect restoration to the normal at the end of three weeks.

Mrs. —— continued well and menstruated regularly up to the 24th of May, 1876. She missed in June, and during July was feeling very badly. By the first of September she presented the following symptoms: severe and persistent headache, frontal and occipital; muscæ volitantes and bright flashes interfered with vision, and the outline of objects seemed so indistinct that she could read but a few minutes at a time. There were present also: insomnia, total anorexia, almost constant nausea, and a general nervous irritability which made her absolutely wretched. I thought I could detect a slight puffiness of the lower eyelid and fulness behind the ankle-joint, but if œdema did exist it was very slight. She was passing large quantities of urine of a sp. gr. of 1010. Dr. Segur examined it for me on the 18th, and found albumen over one-eighth, and numerous granular and hyaline casts; no blood globules. Her symptoms grew worse in spite of treatment, and she begged earnestly for relief. On the 22nd, in consultation with Dr. E. S. Dunster, Professor of Obstetrics, etc., in the University of

* The term albuminuria is used to indicate a general pathological condition, one of whose symptoms is the appearance of albumen in the urine.

Michigan, it was determined that interference was necessary. On the 25th I introduced a flexible sound to the fundus, a depth of three and one-half inches; a little watery fluid tinged with blood followed the sound on its withdrawal. No other result ensuing, the sound was used again on the 27th and on the 29th. On the first of October, a small carbolized sponge tent was introduced into the cervix and allowed to remain twenty-four hours. On the fifth of October—nine days after the first introduction of the sound—Dr. Segur examined the urine carefully and was surprised to find but one granular and comparatively few hyaline casts. Heat and nitric acid produced a very light cloud of albumen which settled at the bottom of the test tube into too small a compass to be measured. The urine was passed less frequently and less copiously, sp. gr. 1013. Mrs. —— had almost no headache after the 26th, was out every day, and called herself well. All this time there was no discharge from the vagina, and no pain, and it was not until the 15th of October, twenty-one days after the first introduction of the sound, that the uterus attempted to expel its contents. On the evening of the 15th hæmorrhage commenced, and continued so profusely that, after applying a tampon with persulphate of iron, I called Dr. Skene to my assistance; and on the next morning he removed the contents of the uterus with the curette. The ovum escaped detection, although looked for with great care. The sac which contained it was examined by Dr. Segur, who found everything normal except that the villi of the chorion were less prominent than usual, the attached surface appearing to the naked eye almost smooth; there was no fatty degeneration. Mrs. —— had a rapid and uninterrupted recovery. Just two weeks after having been for hours in a condition such that the slightest movement produced syncope, she went to the Centennial Exhibition at Philadelphia, where she remained some days. She told me, upon her return, that she had "seen everything, had walked miles every day and was perfectly well." There was certainly nothing in her appearance to contradict the last part of her assertion. Her urine—examined on the 25th, *ten* days after the womb had been emptied—showed no trace of albumen, and Dr. Segur was able to discover only a few hyaline casts. Examined again on the 21st of this month, the report is no albumen and no casts.

My comments upon this case will be confined to its bearing upon the three propositions already stated.

1. That pregnancy was the sole cause of albuminuria in this case seems to be indisputable. Mrs. —— is certainly not the subject of Bright's disease. Examination of the urinary deposits fails to give evidence of either inflammatory changes or of fatty degeneration of the kidney. Her general condition—one of perfect health as far as can be discovered—would seem to indicate that her kidneys must be rarely perfect in structure to have successfully resisted the *four* separate invitations to disease by which they have been visited. Mrs. —— is almost reckless in exposing herself to wet and cold, and often alternates weeks of sedentary occupation with days of excessive and fatiguing exercise. And yet there have been no variations in her history from the strict level of health, except during her pregnancies. She has told me that the only sickness she has had since childhood was an attack of bronchitis. Again, it may be worth while to note that, if what the books tell us be true, namely, that latent Bright's disease predisposes its pregnant victims to abort, she should have evidenced a tendency to abortion, instead of offering such extreme resistance to its induction. The albuminuria began with each pregnancy and ceased with its arrest. The only question, therefore, that could be raised, is as to the existence of some other cause coincident and concurrent with pregnancy, and yet independent of it. This question I will dismiss by saying that the existence of such a cause, if not impossible, is certainly incapable of proof.

It may then be fairly inferred from this case that pregnancy, before it has advanced two months, can and does produce albuminuria.

II. The *fact* of causation being proved, the question as to the *mode* of causation must be met. Why and how does the presence in the uterus for less than two months, of a fertilized ovum, alter the function and structure of the kidney to such an extent as to determine the

appearance in the urine of albumen and casts? (The development of so-called uræmic symptoms, as it depends upon alteration of the kidney function, however produced, opens a different question, which has been successfully investigated, and need not detain us.) In studying the way in which pregnancy produces albuminuria, we are compelled to leave the open field of fact and proof, and to enter the misty region of theory and inference. In the first place, recorded observations as to the earliest period at which albuminuria has been detected, are very few; moreover, the belief that it does not appear until the pressure of the enlarged uterus upon the venous circulation affords an apparently easy explanation, is so general, that I have looked almost in vain for assistance from authorities on obstetrics. I find little evidence that the occurrence of albuminuria before the fourth month of pregnancy has ever been recognised except as a result of original pre-existing disease of the kidney. And yet, while these writers speak of the pressure of the uterus as the most *obvious* solution of the phenomena of albuminuria, some of them refuse to accept it as the only and inevitable explanation; and refer, for the most part vaguely, to the possible existence of other causes as potent as pressure.

Dr. Tyler Smith, speaking of cases occurring as early as the fourth or fifth month, is "inclined to think" the albuminuria due to "sympathetic irritation of the kidney by the gravid uterus, of the same kind as that excited in the salivary glands, the mammæ, thyroid, etc."

Dr. Fordyce Barker says that, "while there is probably much truth in the present theory, it does not contain the whole truth, and it does not even include all of the mechanical causes." Büt he pursues the subject no farther. He relates a case, however, in which albuminuria was apparently, (he thinks undoubtedly) produced in the last month of pregnancy by exposure to cold; was relieved by treatment before delivery, and re-appeared *during* delivery, excited, as he says, by the parturient act. This case is interesting in this connection only in that it shows that the albuminuria was relieved without the removal of the pressure. Other writers on obstetrics have entered more fully, if not more satisfactorily, into this subject, but it would little profit us to examine their theories, especially as most of them are applicable only to the later months of pregnancy.

By going outside of the range of obstetrical literature, we ought to gain information suited to our purpose. But although material is abundant it is not to us easily available, and for this reason, that, independent of specific kidney lesion, the diseases which are now known to be attended by albuminuria are so numerous, and pathologically so distinct, that we are puzzled in the endeavour to make analogy and comparison useful in testing the causative influence of pregnancy. It is hard to believe, for instance, that the conditions under which albuminuria is produced by valvular diseases of the heart on one hand, and by diphtheria on the other, are identical, or even similar. That scarlatinal poison and that pregnancy both cause albuminuria is proved; but that both cause it by originating exactly the same kind of disturbance eludes demonstration. It is rather a "begging of the question" to assert that each produces changes in the blood, and that it is useless to seek beyond these wholly indeterminable changes for a mode of causation. It is easier to suppose that each disease, or each group of diseases (if they can be grouped ætiologically or otherwise) has a peculiar power, and exerts it in a peculiar way, than it is to suppose the existence of some one essential condition to which all equally give rise, *i. e.*, one single and immediate cause of albuminuria. Let us then leave an unprofitable line of investigation, and, discarding all arguments based on analogy, try to discover what there is in pregnancy by itself which excites the kidney to the production of albuminuria.

When an ovum is fertilized a profound impression must be made upon the nervous centres which preside over the processes of nutrition. The rapid and complex growth of the fœtus; the establishment of a new vascular system (as it may be termed) for its support; the remarkable development of the uterus to make it serve as a suitable home for its growing infancy, and an efficient means of expulsion at its maturity, demand large applications of nutritive force The medium through which these

impulses are transformed into actions is the great sympathetic nerve. The first steps toward any change of nutrition are accomplished by the agency of the vaso-motor nerves. The blood being ready to furnish material, the capillary circulation must be made ready to take it up. And this conditon of excitation must be maintained by the action of the sympathetic nerves during the whole time that an extra supply is needed. Now anatomists tell us that the uterus is supplied with organic nerves from the spermatic plexus; they tell us also that the spermatic plexus is derived chiefly from the renal plexus. With this close anatomical relation is there not also a close physiological and pathological association? The impulse sent forth by the common nerve centre over one set of nerves to one organ may sometimes (be sufficiently intense to) react and send a similar impulse through another set of nerves to another closely related organ. A sort of internal reflex action may in this way be propagated from the uterus to the kidney.

Dr. Dalton, in his physiology, divides the reflex actions in which the great sympathetic is concerned, into three kinds. The third kind he describes as "reflex actions taking place through the system from one part of the internal organs to another." Under this heading he says: "The mutual action of the digestive, urinary and internal generative organs upon each other takes place entirely through the medium of the sympathetic ganglia and their nerves. The variations of the capillary circulation in different abdominal viscera, corresponding with the state of activity or repose of their associated organs, are to be referred to a similar nervous influence."

The uterus and the kidney are certainly "associated organs;" and it is, therefore, at least probable, that an influence derived from the unusual nutritive activity in the uterus may be reflected from the nervous centre through the renal nerves; and being continuous, may stimulate or alter the interstitial circulation of the kidney in such a way as to produce albuminuria. This explanation, I am convinced, is nearer the truth than any other with which I am acquainted. The idea that pregnancy might produce changes in nutrition, and so affect the kidney, is not new, but I have never seen it stated exactly as I have given it. The theory is simple, and involves no more of obscurity than all theories must which depend on reflex action. It is also general in its application. Perhaps it may not account for every theory as completely as it seems to do for mine, and yet I cannot now recall any observed condition belonging to the albuminuria of pregnancy which it would fail to explain. I am at least willing to accept it as a reasonable explanation of the mode in which pregnancy produces albuminuria.

III. The consideration of the third proposition need not detain us long. The history of the case I have detailed presents the following testimony: In two different pregnancies uræmic symptoms, which had been severe, disappeared almost immediately after the use of measures to destroy the ovum. In both cases there was an interval (in one of five weeks, in the other of twenty-one days,) between the operation and the removal of the contents of the uterus; and yet the signs of albuminuria diminished as rapidly *during* this interval as they did after it. It seems evident, therefore, that the albuminuria depended upon the *life* of the ovum, not upon its mere presence, and certainly not upon the size of the uterus. The meaning of this is plain when viewed in the light of the theory of causation that I have advanced. While the ovum is alive various active processes are at work, the influence of which upon the kidney I have attempted to indicate. As soon as the ovum dies the increased activity of nutrition demanded for its growth is no longer needed; and, as nature is rarely wasteful of her powers, the nerve impulse to activity is no longer given. When direct action ceases, reflex action, which is born of it, must cease also; and the albuminuria ends with the process by which it was excited. For these reasons, then, I find it easy to believe that the death of the ovum puts an end to the albuminuria.

In conclusion, I would say that this subject deserves closer examination than it has received. And if the investigations of more competent observers establish principles to supplant my crude suggestions, I shall be happy if my case started the inquiry, even though it be no longer an illustration of the propositions I have attempted to defend.

THE MECHANISM OF SPONTANEOUS VERSION.

In the *Annales de Gynécologie* for June, 1876, Dr. Geneuil relates the following case :— A woman, aged twenty-eight, who had previously had three children, and had a full-sized pelvis, was pregnant for the fourth time. At full term slight labour pains commenced about midnight. By noon on the next day the pains had assumed an expulsive character, and the membranes ruptured in the presence of a midwife who was attending, and who then detected an abnormal presentation. Dr. Geneuil, on being summoned, found the left arm, swollen and blue, hanging from the vulva, the fœtal head being in the right iliac fossa. The os was tightly closed round the shoulder, and the hand could not be introduced into the uterus. Dr. Geneuil therefore decided that it would be impossible to attempt version, and resolved to perform embryotomy. At the end of half an hour, having made his preparations, he laid his hand upon the uterus, and was astonished to find that on the left side there was strong contraction, while upon the right there was none. Thinking, therefore, that since the pelvis was large, spontaneous version might be accomplished, he left the case to nature. By 4 p.m. the shoulder began gradually to recede, and by 4.30 p.m. the breech was presenting. The contractions then became uniform on the two sides of the uterus, soon increased in vigour, and at ten minutes past five a dead female child, rather above the average size, was expelled. The author believes that his observation in this case explains the mechanism by which spontaneous version is accomplished, and that the powerful contractions on the left side of the uterus forced the breech down, while its comparative laxity on the right side allowed the head, lying in the right iliac fossa, to recede.—*Obstet. Jour.*

Examination of "Pain Killers."— By Joseph J. Pierron, Ph. C.—*Perry Davis' Pain Killer.*, In a bottle sold for a dollar. Spirit of camphor, about two fluid ounces; tincture of capsicum, about one fluid ounce; guaiac, one-half ounce; myrrh, colour; and three fluid ounces of alcohol.—*Peninsular Jour. of Med.*

CHRONIC INVERSIO UTERI.

Dr. White, of Buffalo, read a paper, at the International Congress, on "Chronic Inversion of the Uterus." He has met with twelve cases since 1858, when he first successfully operated for the reduction of a case of twelve years' standing, and he had succeeded in reducing every case he has met with. From his experience in this operation, he believes that every case, of whatever standing, may be reduced. Failure to reduce heretofore has consisted in a lack of keeping up pressure upon the inverted organ for a sufficient length of time. The average duration of the operation in his hands has been over an hour, and the cases operated upon have been of all degrees of standing, from six months to twenty-two years. The patient should be placed on her back, with the thighs flexed and feet and knees supported by assistants. The rectum and bladder should be emptied beforehand, and the patient anesthetized. He uses a repository, one end of which consists of a cup-shaped piece of India-rubber placed upon a hard-rubber stem, about eight inches long, and curved to meet the requirements of the pelvis, while attached to the proximal extremity is a steel spring, conical in shape, the base of which is intended to be placed against the breast. By this means the hand is relieved, and during the operation should encircle the inverted uterus resting in the cup-shaped extremity, and thus direct the power applied. The gradual pressure will stretch the vagina, whose upper extremity will retract, the cervix thus permitting the passage of the fundus. When that has once passed to the level of the os, a large rectal bougie may be substituted, and the pressure continued until the organ is entirely replaced. Except in recent cases, Dr. White does not believe that pressure applied to the fundus will produce "dimpling" of it, and he considers the reduction of the organ, *as a whole*, necessary.—*Philad. Med. Times*, Sept. 16, 1876.

Professor Roger Hennedy, of Anderson's University, Glasgow, died at Whitehall, Bothwell, on the 22nd Oct., aged sixty-eight.

JAUNDICE DURING PREGNANCY AND ITS EFFECTS UPON MOTHER AND CHILD.

BY E. H. MONKS, L.R.C.P., WIGAN.

Case I.—Mrs. W., of a strong constitution, had had four previous confinements. This time, when eight months advanced in pregnancy, she suffered from jaundice. She was delivered of a dead child prematurely; and, in a few hours after delivery, the patient died.

Case II.—Mrs. F. suffered in a similar manner to Case I. The treatment consisted of the usual remedies prescribed in jaundice. Premature delivery took place; the child was dead. After delivery the patient lost consciousness, and died in six hours.

Case III.—Mrs. A. was admitted into the Infirmary at Wigan, suffering from jaundice, with the usual symptoms, on April 13th. On examination the liver was found to be greatly enlarged. She had severe pain in the right side, extending to the back. She was advanced six or seven months in pregnancy. For fourteen days she grew worse. The patient was certain on the 27th that the child was dead. On the 29th, she appeared much better. On the 30th, Mr. Monks was summoned by the house-surgeon, who thought she was dying. On his arrival she had rallied, but the pulse was rapid, and could not be counted. On May 1st, she appeared as well as she was on April 27th. On May 3rd, Mr. Monks tried to induce premature labour. On the 6th, she was delivered of a dead male child, at about seven months. Decomposition was just commencing. The patient was very faint; in about half an hour, she revived; and was delivered about eleven o'clock. She died at half-past two.

Dr. Stainthorpe had seen a similar case, which was fatal.—*Obstetrical Journal.*

Return of the Secretion of Milk.—It is well known to foreigners resident in China that the Chinese women who have borne children are able to excite anew the secretion of milk years after the last child had been weaned. Dr. Muller reports two cases of this curious phenomenon that were observed by him. A woman, aged 30 years, whose breasts were completely retracted, and had been inactive for six years, took a child six months old, which she placed frequently to her breasts, confining herself, at the same time, to a special diet. Ten days later the milk began to be secreted, and after six weeks Dr. Muller found the breasts firm and well developed, and pressure caused a stream of milk to flow out. The menses ceased while this lactation continued. The general health was very good. By similar means the secretion of milk was re-established in a woman 40 years of age, whose youngest child was 9 years old, and had not been nursed for 6 years. In this case menstruation did not stop, but it became less abundant. In a third case, the attempt to re-establish the secretion of milk excited such disturbances of the general health, that it had to be discontinued. In the two first cases the milk was carefully examined and found to be normal; its specific gravity was 1030.—*N. Y. Medical Record.*

Non-Existence of Mucus in the Urine.—M. C. Méhu contributes an article on this subject to the *Bull. Gén. de Thérap.*, 1876, v. 2, p. 161, in which he shows that the substance usually known as urinary mucus consists, ordinarily, merely of epithelial or organic detritus, sperm, pus, phosphates, urates, or a mixture of these. In other words, that substance visible to the naked eye, and designated *mucus*, is nothing more than the normal or pathological sediment of the urine. Its aspect varies infinitely with the nature of the elements which go to make it up, and with the acid or alkaline condition of this liquid. Mucus contains mucine; the urine does not contain this substance. Finally, solutions of mucine, like those of sugar or albumen, offer nothing appreciable to the eye. It is, therefore, erroneous to give the name *mucus* to a detritus epithelial or otherwise in nature.

An Iron Calculus.—A man in Paris recently passed a urethral (?) calculus the size of a hazel-nut. Its passage was attended by severe nephritic colics. M. Cazeneme found, on examination, that it was entirely composed of almost pure peroxide of iron.—*N. Y. Med. Record.*

Materia Medica.

ON A MODE OF GENERATING SULPHUROUS ACID FOR USE AS A DISINFECTANT, &c.

BY THOMAS W. KEATES,

Consulting Chemist to the Metropolitan Board of Works, &c.

From the remotest time, burning sulphur has been employed to fumigate and purify infected air, and to destroy fermentative and putrefactive action. There is no agent more powerful in its effects than this. Unlike chlorine, it not only acts as a disinfectant or destroyer of disease-germs and of the results of putrefaction, but it is also a powerful preservative agent, and, like carbolic acid, is a preventive of chemical changes in dead organic matter of every kind.

Although the value of sulphurous acid is thoroughly understood, its use is necessarily limited by the difficulty which exists in the way of producing it in a form in which it can be readily applied. The ordinary method of generating it by burning sulphur is cumbrous and very uncertain, owing to the difficulty of keeping up the combustion; there are also many situations in which the process cannot be carried on at all, and under the best circumstances it is inconvenient and but little under control. The evolution of the gas from its solution in water is scarcely more convenient, while it is much less effective; indeed, it may be said that there is no ready, convenient, and easily controllable way of producing this valuable agent in use at present; and this is the more remarkable when it is considered what a ready and simple means we really have at hand for this purpose.

Most of the readers of *The Lancet* are no doubt familiar, at least theoretically, with the substance called bisulphide of carbon. This is a compound of one atom of carbon with two atoms of sulphur (C, S^2); it is a dense, mobile liquid, heavier than water, and intensely inflammable, burning in the air like spirit of wine. During combustion the constituents of the bisulphide combine with the oxygen of the air, producing sulphurous and carbonic acid gases; but as 100 parts contain, by weight, as much as eighty-four parts of sulphur, which will give, in burning, 168 parts of sulphurous acid, it will be seen that the volume of this gas from a given quantity of bisulphide greatly exceeds that of the carbonic acid, and is comparatively very large. Suppose the above quantities to be in grains; as 100 cubic inches of sulphurous acid weigh 68·5 grains, the 168 grains will measure upwards of 245 cubic inches, or about one-seventh of a cubic foot, which is the volume of sulphurous acid obtainable from 100 grains of bisulphide.

The bisulphide of carbon can be burned in a common spirit lamp, and in that case the products are sulphurous acid and carbonic acid only, in relative proportion to the atomic composition of the bisulphide, as I have stated; but by a modification of the method of burning, the amount of sulphurous acid produced in a given time can be regulated to any desired extent.

It is a property of the bisulphide of carbon to dissolve in fat oils and hydrocarbon liquids, such as petroleum; so by mixing it with any one of these liquids and burning the mixture in a properly constructed oil or petroleum lamp, sulphurous acid will be generated with the other usual products of the combustion of such materials, and in proportion to the quantity of bisulphide present in the mixture of combustible liquids: any proportionate quantity of sulphurous acid can in this way be thrown into an atmosphere, and the action may be continued for any length of time.

As the sulphurous gas is generated *pari passu* during the combustion of the bisulphide, it diffuses itself in the air, which in a short time will become completely impregnated with it. In a room containing about 1,300 cubic feet of air it was found that by burning 280 grains of the bisulphide the atmosphere was so far charged with sulphurous acid that it was impossible to remain in the room for more than a few seconds. In five minutes after the lamp was lighted litmus paper began to be reddened at some distance from it; in ten minutes the air had become very oppressive, and the litmus paper was reddened in the extreme corners of the room; in fifteen minutes the air was so charged with the gas that it could scarcely be breathed, and in twenty minutes it was unbearable. In that time, as I have said, 280 grains

of bisulphide were consumed in a simple wick lamp.

Sulphurous acid generated in this manner can be applied with facility to the disinfection of any place or object. In the case of rooms in which infectious or contagious disease has prevailed, it is only necessary to light the lamp and allow it to burn until the atmosphere has become impregnated with the gas to any desired extent, and then to remove or extinguish it just like a common spirit-lamp. In the simple form of apparatus which I suggest for this purpose, the lamp is enclosed in a metal case, about three inches in diameter and eight or nine inches high, furnished with holes near the bottom for the admission of air, and others in the top for the emission of the sulphurous gas.* This can be conveniently moved about, and placed, while the lamp is burning, in almost any locality. Receptacles for infected clothing, or the clothes or linen used in connection with disease, or carriages which have conveyed fever or other patients, can be thoroughly purified without difficulty and with very little trouble. For the disinfection of ships, too, the lamp is particularly suitable, as it can be carried into the remotest part of a ship and burned without the least danger, and with the certainty of effecting its object completely.

It must be observed that the bisulphide of carbon is extremely volatile, having its boiling point as low as 102° F.; it is therefore necessary that the lamp in which it is burned should be furnished with a well-fitting screw-cap, to prevent the liquid from evaporating, and at the same time to keep its peculiar odour from escaping. This odour is often very nauseous, but the bisulphide is now manufactured by Messrs. C. Price & Co., of Thames-street, so pure, that it possesses very little smell, and can be used without the least inconvenience.—*London Lancet.*

Toronto School of Medicine—One hundred and three students have entered their names at this school for the Session of 1876–77. Of these forty-eight are freshmen.

* This apparatus is made by Messrs. How & Co., of St. Bride's-street, Ludgate-circus.

PHYSOSTIGMA FABA IN THE CONVULSIVE DISEASES OF CHILDREN.

Dr. G. S. Trezevant, of Columbia, having found no reference in the books, to the use of this drug in the class of cases indicated, places on record (*Trans. S. Carolina Med. Assn.*, 1876) several illustrative cases—all of which show that the effects of the drug are prompt in affording relief. The remedy was suggested by the benefit which the reporter had derived from its use in a case of tetanus, and in numerous cases of cerebro-spinal meningitis.

West says, in reference to the convulsions of children, that: "The great reason of their frequency is, no doubt, to be found in the predominance of the spinal over the cerebral system in early life. In adults, the controlling power of the brain checks the display of those reflex movements which become at once evident if disease heightens the excitability of the spinal cord, or cuts off the influence of the brain from the paralyzed limb, or if sleep suspends the influence for a season." Such being the peculiarity of childhood, if we possess an agent capable of neutralizing and keeping in check this predominance of the spinal over the cerebral system, by controlling the reflex activity of the spinal cord, it would prove of vast service in our treatment of infantile diseases, complicated with convulsions.

In June, 1875, an infant, æt. five months, had cholera infantum, followed by an obstinate diarrhœa, which improved until a relapse occurred on July 2nd. Upon checking the diarrhœa, a tympanitic condition of the bowels ensued, and opisthotonos, so decided as to make a complete arch, which effectually prevented swallowing, Dr. T. ordered alcoholic extract of physostgima, gr. $\frac{1}{32}$ to be given at once; repeat the dose in two hours if not relieved. An hour after the second dose, the Doctor found the patient completely relaxed and able to nurse, and, without further relapse, she slowly recovered.

March 9, 1876. A boy, æt. eleven months, had capillary bronchitis. Two days later, the disease was not improved; but the child was in general convulsions; temperature 104. 5°F.; respiration, 80. To relieve the convulsions, Dr. T. ordered one grain of the extract of the bean to be rubbed up with thirty minims each of glycerine and water. Of this one drachm solution, three minims were given in a teaspoonful of water. No decided effects having occurred within three-quarters of an hour, the dose was repeated, thus administering $\frac{1}{10}$th grain of the extract within an hour. Two hours after the

last dose, the child was conscious and was trying to nurse; the convulsions had entirely ceased an hour earlier. The child remained entirely free from convulsions for four hours, when there was a slight threat, upon the occurrence of which the Doctor ordered a repetition of the dose, to be continued every three hours if needed. Two doses were given during the night, and there were no more convulsions. There was no improvement, however, in the lung, and the child died on the 13th. The Doctor thinks "it sufficiently evident that the convulsive paroxysms were controlled" by the remedy.

M. Bouchut *(Bulletin General de Therapeutique)* gives the results of 437 experiments, performed with eserin, the active principle of calabar bean, the subjects of which experiments were children from 7 to 12 years of age, suffering from cholera in all stages and varieties. The medicine was sometimes administered by the mouth, sometimes hypodermically; dose from $\frac{1}{30}$ to $\frac{1}{40}$th of a grain; the physiological effects produced by $\frac{1}{14}$th grain, injected under the skin, were pallor, nausea, salivation, intense *malaise*, and occasionally vomiting; no colic or *diarrhœa* occurred; pupils often remained unaffected, sometimes dilated, sometimes contracted, always active; abundant perspiration was sometimes noticed; retinal veins were contracted and the fundus of the eye pale. The most disagreeable symptom which occurred was an enfeeblement, or even paralysis of the diaphragm; no unpleasant sequelæ were observed. The most suitable dose for hypodermic use is $\frac{1}{28}$th of a grain; this never causes any disagreeable effects, and may be repeated twice or three times a day. Next, as regards the remedial effects of the drug, the *choreic* movements are invariably arrested, as long as the physiological effects of the injection lasts; when this has passed off they return, but usually in a less severe form. Daily injections cure the disease in an average period of ten days.

Dr. McLaurin, (*Edinburgh Journal*, vol. II, page 319) reports a remarkable case of *tonic convulsions*, which persisted for many months—the fits recurring several times a day. There was no loss of consciousness, but rigidity of the limbs, the head being drawn towards the left shoulder, and twitching of the features of the same side. Every remedy was fully tried in vain, and the condition of the patient was growing steadily worse, when it was determined to try physostigma. The dose was gradually increased, until the equivalent of 4 grains of the bean was taken four times a day; it reduced the pulse temporarily to 58, and excited a gastric uneasiness, which is peculiar to its operation, but the pupil remained unaffected, and from the first the patient slept better at night; then the intervals between the paroxysms became longer and the attacks less severe, until at the end of five or six weeks, they ceased altogether.

In another case, reported by the same party, in the *London Lancet*, a little girl $4\frac{1}{2}$ years old, who had had convulsions four or five times a day for nine months, not a single attack occurred after the first dose of the medicine. Why should we not find this drug efficacious in puerperal eclampsia?

Dr. Frayser says the anæsthetic effects of physostigma may be applied to the treatment of all nervous diseases.

In a case of *chorea*, supervening upon an attack of cerebro-spinal meningitis, Dr. T. has seen great benefit derived from $\frac{1}{12}$th of a grain of the solid extract given three times a day to a child nine years of age; and in the two cases referred to above, the excessive irritability of the bowels seemed to be decidedly lessened.—*Virginia Medical Monthly.*

Precautions in the Use of Salicylic Acid.—After relating some cases of rheumatism in most of which the acid had been very useful, and one in which it had not, and after noting its effect in reducing the temperature, and in one case, he says, of producing intermittent pulse, the author proceeds:—

These cases, although perhaps too few to serve as a basis to any positive conclusions, lead to the belief that in acute rheumatism of adults Salicylic Acid should be administered in doses of five grains every three hours, for two days; and then, if the effect is not apparent, five grains every two hours, and even every hour for another forty-eight hours at the most, unless vomiting first supervenes. If, however, on the second, third, or fourth day profuse perspiration comes on, with reduction of pulse and heat of skin, the temperature will have to be accurately observed at intervals of six or eight hours; and when it comes down to 99 F., the remedy will have to be suspended and Quinine given instead; and if the thermometer marks a lowering below the normal, with brandy and Carbonate of Ammonia freely to sustain the vital powers. With such precautions, treating the case, so to speak, *with thermometer in hand*, we shall probably be able to avoid severe and dangerous prostration, which in a weak patient, and in cases seriously complicated, might be followed by fatal results.

It appears obvious that the remarkable power this non-poisonous antiseptic seems to possess of controlling rheumatic fever, will bring, if it shall be proved that it exists, great support to that theory of the origin of certain diseases which my observations and my experiments induce me to embrace. (Richardson from *Germ. di Med. Mil.;—Gaz. Med. Ital.*)

[We have given Salicylic Acid in doses of fifteen grains, four times a day, to a young lady of fifteen years. There may, however, be a temptation to adulteration of the drug, owing to its high price.—Ed.]

Treatment of Opium Poisoning by Liq. Ammoniæ.

From the Gazzetta Medica Italiana.

Among the cases seen at the clinic (Rome), one of poisoning by morphine deserves special mention.

A woman, 22 years of age, the wife of a pharmacist, swallowed, with the intention of committing suicide, a (un)certain quantity (how much could not be ascertained) of hydrochlorate of morphia about a quarter to ten in the morning. At eleven a.m., of the same day, she was brought to the clinic; she was insensible, the face was livid and swollen, the pupils contracted, and the lips (mucous surfaces) and extremities cyanotic. It was impossible to arouse the consciousness by the strongest stimulants. A bladder of ice was applied to the head, strong sinapisms to the extremities, and the application of electricity over the ganglia of the cervical sympathetic was also tried. But all in vain; the woman seemed lost. Then the Professor caused to be introduced into the patient's stomach, by means of an œsophageal tube, a few grammes of "*liquore anisato d'ammonio*," and immediately the woman regained her senses, and in a short time recovered completely.

Eruptions Produced by Quinia.—In the *Journal de Thérapeutique*, No. 8, 1876, Dumas relates the case of a woman suffering from facial neuralgia, who, after having taken only 30 centigrammes (4½ grains) of sulphate of quinine, was seized with a paroxysm of asthma, coryza, fever, and violent itchiness over the whole surface of the body, accompanied by an eruption of urticaria, and further by a peculiar eruption formed by red spots like a scarlatina rash, and on some parts by papules. On four different occasions the patient suffered from the same symptoms after taking quinine.—*London Medical Record.*

Medical Jurisprudence.

The Middle-Ear of Neonati in its Medico-Legal Aspect.

Resumé and general conclusions of a medico-legal study, by Dr. Gellé:—

1. In the fœtus the middle-ear is full of a gelatinous smegma, and contains no air.

2. At the moment of birth this smegma disappears, and in its place air enters the cavity of the tympanum.

3. This is due to the act of respiration, and the derivation of blood to the vascular territory opened up to the circulation; the thick reddish smegma grows pale and is absorbed; it was a body; there now remains but a coating.

4. The auricular cavity is little by little filled with air from without. The cries and sucking efforts favour, in their turn, respiration, and the æration of the tympanic cavity.

5. The time necessary to complete this condition depends upon the activity of respiration

6. When all proceeds well, the transformation takes place in a few moments; rarely it occupies some hours—twelve at most.

On the other hand, if respiration is feeble, if asphyxia, rapid or slow, takes place, the æration of the tympanic cavity is incomplete—exists only on one side or not at all. In these cases the contents of the cavity are mixed, the fœtal condition being still pretty clearly shown, spite of the ascertained presence of air; it is the combination analogous to that observed in asphyxiated lungs.

* * * * *

8. When the examination of the lungs is impossible, or gives uncertain results, the medical expert will be able to find, in the examination of the ear, signs confirmatory or negatory of the presence of air and of respiration.

9. Besides, this examination of the middle ear of the *neonatus* will aid us to judge of the kind of death, of its cause, whether by hæmorrhage or by asphyxia, &c., &c.; and so, also, of the time when death took place, if before or after birth, if before or after the first inspirations.

* * * * *

12. Death by hæmorrhage can induce, through

anemia, the artificial production of the cavity of the ear; it is necessary to remember this source of error.

13. On account of insufflation of the *meonatus* in a state of apparent death, one may be able to find in the tympanic cavities, or in one of them, sero-sanguineous liquid, more or less mixed with air, without the fœtal character having entirely disappeared. The mechanism of the penetration of the air being in this case entirely different, the general and local circulatory phenomena not having travelled with equal pace, there will be found even in this ambiguous mixture a characteristic of the fœtal condition.

14. Aural catarrh often exists at the time of birth.

15. This is a serious obstacle to the transformation (æration) of tympanic cavity.

1 . Also it is opposed to the entrance of air, because it induces hypertrophy and hyperplasia of the mucous membrane of the tympanic cavity.

17. Often, after birth, the action of the air transforms the simple catarrh into *purulent otitis neonati.*

* * * * *

22. In an examination made a long time after the time of the crime, or of burial, * * thanks to the resistance which this smegma presents to decomposition and putrefaction, justice will still know the truth, and the absence of respiratory life may be victoriously demonstrated; the value of this criterion seems to be incontestable.

23. In case of infanticide by hæmorrhage, the practitioner will have to calculate the part which this cause of error plays in the disappearance of the tympanic contents.

24. Through the cranial wall it will be necessary to cast the first *coup d'œil* on the contents of the cavity; but, before opening it, we should adopt the precaution of puncturing, under water, the *membrana tympani*, and seeing whether there arise, through the puncture, any bubbles of air, mixed with bloody serum. The temporals being taken out, they ought not to be washed nor put into any solution, but simply placed on a little cloth, wet with phenicated water; the whole being put into a vessel well closed and sealed, till it is examined.—*Tribune Med.—Gaz. Med. Ital.*

Translations.

Modern Urology.

BY M. CH. OZANAM.

In the first part of this work, the only one which, it appears to us, would interest our readers, M. Ozanam presents in concise form certain results of the study of the urine as applied to symptomatology. The profound contempt that the sobriquet of *Urine Doctor*, applied to a certain class of empirics and charlatans, has for some years inspired, ought not still to lead us to neglect the study of the important secretion of the kidneys. The greatest physicians of all ages have endeavoured to find in the urine elucidation in the diagnosis of disease. Their uroscopy was chiefly founded upon (an observation of) its physical qualities: colour, smell, taste, appearance, precipitates, and deposits. They distinguished the urine of potation, that of digestion, and that of the blood or depuratory urine. But, in our day, chemical and spectral analysis, the use of the microscope, and the study of densities have conferred upon the urine a fresh importance by making us to recognize in it sometimes the cause, sometimes the effect of a whole host of various diseases and complaints. The study of *blue urine*, of *albuminuria*, of *diabetes*, of *glycosuria*, of *inosuria*, and of *phosphaturia* has been the means of so much progress in the science that one can only glimpse at the collective importance of a secretion in which, so to speak, all the products of the economy "fall into line." The same is true of the study of *uræmia* and of *uricæmia*, and of the discovery of *urochrome* of *uropittine*, and of omicholic acid by Thudichum.

Thus it is that we now know that in *cerebral affections* there is a great waste of *phosphoric acid* passed off by the kidneys, a loss which reaches from 2·49 to 3·93 per cent. in the twenty-four hours. The same holds good of the *chloride of sodium*, which the urine carries off in abundance in cases of cerebral softening, whence the indication to give to these patients both phosphorus and sea salt as remedies. Melanotic tumours communicate to the urine a deep tint, of sepia (black) colour, and the microscope reveals in it the presence of pigmentary granula-

tions, whilst the evaporation of a few drops of the urine will then produce hortensia (rose) coloured crystals.

Albuminous Urines, according to modern investigations, are an important diagnostic and prognostic sign in several diseases. They serve to differentiate at the commencement between malignant cholera, in which they are found, and mild attacks of cholera and cholerine, in which they are wanting. They distinguish, in the same manner, malignant diphtheria from its benign forms and from membranous angina.

Phosphaturia, in its turn, affords the surgeon very valuable indications in some affections. Thus, when a patient suffering from cataract presents, at the same time, evidences of phosphaturia, be sure that, if you operate, destruction (sinking) of the eye will follow. This therapeutic indication is not, on account of its being negative, the less useful to know.

In *cirrhosis of the liver* and *pylephlebitis*—that is to say, destruction, partial or complete, of the venaporta—there is glycosuria by day and not by night, so that, in this case, the glycosuria points to hepatic obstruction, and not to diabetes. In the course of *Phthisis*, increase of the urates is a sign of serious aggravation of the disease. In *Addison's disease*, (bronze disease), the urine contains a third less of urea than in the normal state, perhaps 13 to 20 grammes (195 to 300 grains) in the 24 hours, instead of 26 to 36 (390 to 540 grains), according to age. It contains indigo besides in tenfold proportion to the normal state.

Thus it is, again, that the presence of indican in the urine, during the course of an affection of the liver, ought to diagnosticate a cancer of that organ.

And if I wished to show, further, the importance that urological science has acquired in the last few years, I could take, in this connection, here, for example, oxaluria, that is to say, the presence in the urine of oxalate of lime, the result of the incomplete oxidation of uric acid. This condition of oxaluria is constant in pulmonary affections, pneumonia, catarrh, acute miliary phthisis, intermittent fever, the end of typhoid fever, glanders, chlorosis, melancholia, and apoplexies, when they are severe. It is absent in the beginning of typhoid fever, stationary phthisis, intestinal catarrh, acute rheumatism, pharyngitis, dysentery, and incipient cancer. See then its importance from a diagnostic and prognostic point of view.

Oxaluria determines the diagnosis, sometimes very difficult, between incipient typhoid fever, where it is wanting, and intermittent fever, and acute phthisis, where it is present.

If a young man, suffering from debility, presents a condition of oxaluria, without evident cause, he ought to be suspected of spermatorrhœa.

If a young man, affected with nocturnal nervous phenomena without spermatorrhœa, presents oxaluria, you may affirm that his attacks are epileptic. If an anæmic patient, with great debility, have oxalic deposits in his urine, suspect acute phthisis.

If, subsequent to an apoplexy, oxaluria appear, fear a latent pneumonia.

If, after a pleurisy, oxaluria persist, you have to encounter a phthisis still latent.

If oxaluria appear in the course of cancer of the stomach, it is an evidence of the commencement of ulceration.

If, in the case of a melancholic patient or a maniac, the oxaluria disappear, announce an approaching cure or, at least, a great amelioration.—(*Bulletin de la Société hom. de France.*)—(*Lyon Médicale.*)—(*L'Union Médicale du Canada.*)

The Introduction of Iron into the Economy by the Hypodermic Method.

Translated from the *Revista Medico Quirurgica*, of Buenos Ayres.

In anæmia perniciosa, when the absorption of medicaments by the stomach is impossible, Prof. Haguenin, of Zurich, does not hesitate to administer them by sub-cutaneous injection. He employs a formula in which the pyrophosphate of iron, mixed with the sulphate of ammoniac (?) in the proportion of ten parts to fifty of distilled water, so that a common Pravaz syringe contains three centigrammes of iron. Immediately following the injection, a redness of the skin is observed, swelling, and some slight cardiac symptoms, but all promptly disappear, and the general condition improves.—*From Correspondenzell fur schrv. Herzte, No.* 11.

On Alcohol as a Cause of General Ganglionic Hypertrophy and Leucocythemia.

Translated from the *Revista Medico Quirurgica.*

M. Rivier read a communication on the diseases produced by alcoholic excesses, showing that the degenerations and perversions of nutrition which alcohol gives rise to in various organs have been perfectly studied in the liver. The observations made are interesting from the point of view of ganglionic alterations from alcoholic intemperance, and he concludes his note by calling attention to patients in the wards in which alcohol had produced retinal and meningeal hæmorrhage, cirrhosis of the kidney, and secondarily, a general ganglionic hypertrophy, which remained for a long time without affecting the character of the blood, and complicated at the end of twenty years with a leucocythemia, which accelerated the fatal termination by the consequent cachexia. Alcohol produces cerebral lesions; according to the author, these lesions hasten the course of the leukæmia, and, under the influence of this disorder, the alterations of the liver and spleen develop, and he concludes by making the two following deductions:—1st. Alcohol exercises a direct influence upon the lymphatic system, and may occasion general ganglionic hypertrophy and leucocythemia. 2nd. In certain cases, cerebral lesions hasten the course of this disease.—*From El Progreso Medico.*

(From Le Progrès Médical.)

At the meeting of the "Société de Biologie," on the 24th June, M. Poncet communicated, in the name of M. Berger, an army surgeon, a very interesting observation. It occurred in a child who had swallowed an ear of corn; sometime afterwards it gave rise to a pneumonia, then an abscess of the posterior thoracic wall. One day the ear showed itself opposite the opening of the fistula; it was easily extracted, and the child recovered. At a meeting of the same society, on the 15th of July, the President, M. Claude Bernard, in reporting the results of his studies on anæsthesia in animals and vegetables, and the effects of ætherization upon plants, said: "Anæsthesia is then a general phenomenon which appears with the same characteristics in plants and animals, and acts upon all the tissues. What is the cause of anæsthesia? It is probable that it is by modifying protoplasm that it arrests vital motion. If one judge of it from what takes place in the muscles, this would be pre-eminently a phenomenon of coagulation." At the session of the "Acadèmie de Médecine," on 18th July, M. Depaul presented to his colleagues the uterus of a woman who had died some hours after delivery. An arterial injection that had been made, enabled them to see that the arteries of the uterine tissue are really much more capacious than the vessels from which they arise. This arrangement confirms what the speaker had said to that effect in the discussion upon the bruit de souffle uterine.

Curious Case of Rupture of Urethra.

In the *Revista Médico-Quirúrgica* (*Buenos Ayres*), the case is reported of a man who had suffered for many months from blennorrhœa. The urethritis had become chronic; and the stream of urine gave no evidence of stricture. He began to engage again in sexual intercourse, and set up a more acute urethritis. This again subsided to the chronic condition, and he repeated and continued in his sexual excesses. These were, however, soon brought to an end by rupture of the urethra and violent hæmorrhage from the part, so great as to render him quite faint. Extravasation of urine followed, and then gangrene of the scrotum and integument of penis. After a long course of treatment the patient recovered.

Antiseptic Treatment in the Cure of Wounds.

From the Revista Medico Quirurgica Buenos Ayres.

M. Lavrey lately presented to the Academy of Sciences, of Paris, an article by Dr. Minich, Surgeon-in-chief to the Vienna Hospital, in which the Doctor announces his preference for the sulphite of soda over carbolic and salicylic acids, in the treatment of wounds and erysipelas. According to the showing of the author of the article the favourable results of this new treatment have been manifested in a large number of cases; and he prefers it to anything heretofore known, as safer, simpler, and economical.—(*Anales de la Sociedad Anatomica Espanola*).

A New Method of Insufflation of the Middle Ear.

From a report of the proceedings of the *Société de Chirurgie* on the 4th Oct., as published in the *Paris Médicale*, we see that a discussion took place on M. Ronstan's method of inflating the middle ear by means of a bent tube, one end of which is placed in the mouth, the other in the nostril, (a method which we noticed in a previous number). The patient blows the air into the nasal fossæ, and thence into the Eustachian tubes, whilst the *velum palati* is raised.

M. Tillaux remarked that he found the process of Valsalva more simple. But the forcible efforts made by many persons in the process, provoking cerebral congestion, may go far to bring about various accidents. M. Tillaux seems to prefer Politzer's method to Ronstan's, and maintains that an intelligent patient can use the former, as well as the latter, without surgical aid.

[It seems to us, however, that Ronstan's method, if it should prove as efficient in overcoming an obstinate Eustachian tube as Politzer's, will be much less complicated, and hence more practicable with most patients, and the cost without the air-bag will be less than with it. We have had an opportunity of testing it on two patients, as well as on our own editorial ears, in their normal condition, and find it requires less effort than Valsalva's, and acts more readily; but it does not appear to us to have the same force as Politzer's.

Diseases of the Nasal Fossæ.—Medicated Bougies.

Chronic Catarrh of the nasal fossæ has been successively treated by the inhalation of medicated liquids and vapours; by the insufflation of various powders, and lastly by nasal douches of simple or slightly astringent waters. This last method, lauded, especially, in France, by Duplay, is known in Germany under the name of Weber's method. Grave charges have been made against it, especially by the aural surgeons. Knapp, Gruber, Politzer have attributed to it numerous cases of suppurative inflammation of the middle ear: a patient in Knapp's clinic had even died of this disease, set up by the penetration of the fluid into the cavity of the tympanum. We ourselves have seen, in Politzer's dispensary, a patient who, while using the nasal douche, had been suddenly seized with a sharp pain in the ear, followed by an acute catarrh of the tympanic cavity with suppuration and mastoid abscess. Another, less serious, inconvenience from the nasal douche is frontal headache, caused by the forcible projection of the fluid into the superior meatus. At the session of the Medical Society of Vienna, on the 16th of June, 1876, Dr. Catti proposed to substitute for the nasal douche the employment of medicated bougies, so much esteemed in the treatment of urethritis. The nasal bougies, from ten to fifteen centimetres long by about four millimetres in breadth, rounded at one end, are composed of 0 gr. ·02 of sulphate of zinc, or 0 gr. ·03 of extract of rhatany, made up with gelatin. By virtue of their flexibility these sticks of gelatin are easily introduced, and fill up all the sinuosities of the nasal fossæ. Half an hour is sufficient for the complete liquefaction of the bougie. The liquid is retained in the nasal fossæ by a dossil of charpie, which plugs the openings of the nares; a slight inclination of the head forwards prevents its dropping into the pharynx. Dr. Catti, relying upon an experience of two months, has been able to cite numerous cases of cure by this means. Apropos of this communication, Dr. Fieber's assistant, physician to the general hospital of Vienna, declares that he has made use of similar bougies for a long time, and affords additional testimony as to their indubitable efficacy.—*L. Thaon (de Nice), Progrès Médical.*

Diphtheria — Expulsion of False Membranes. Abortion—Child Living.

By M. Michel, Hospital Interne.

Translated from *Le Progres Medical.*

At the meeting of the Anatomical Society in April, M. Michel showed two tubular false membranes, more than ten centimetres in length, and branched at their lower extremities, like the bronchus they had obstructed. They were emitted by a woman, who soon aborted (at the eighth month of her pregnancy). The child is living, and presents no trace of diphtheria.

Of Paralysis in the Side Corresponding to the Cerebral Lesion.

To show the existence of this paralysis, Brown-Séqard reports a series of experiments on animals and many clinical facts. The best means of producing paralysis is by cauterizing with red hot iron the part of the surface of a cerebral hemisphere. The posterior, middle and anterior lobes have the power of generating this paralysis, the anterior less than the others. The deeper parts, as the walls of the lateral ventricles, the corpus striatum, the thalamus opticus have also the power. The paralysis produced, if the cauterization is light, is seen in one of the limbs, or both, on the side corresponding to the lesion; at other times it appears in the face, in the neck, and in the abdomen. If the cauterization of the surface of the brain is extensive and very deep, there is a paralysis of the four limbs, now more intense in the thoracic, now, in the abdominal, but always more severe in the side opposite to the lesion.

Passing to clinical facts, the author has collected more than 200. Burdach, in 258 cases of paralysis, has been able to establish that 15 were in the side corresponding to the lesion of the brain; Wasse reports 26 cases; Bayle and Dechambre 10. The author does not lay so much stress on the number of cases, but on the special character of some, as the following: In a case in which a pistol ball traversed the right side of the brain, from the posterior part to the superior part of the forehead, and at the distance of 4 centimetres from the mediam line of the occipital bone, and 2 from that of the frontal, there was paralysis of the same side. It is impossible, he says, not to admit a lesion of the three right cerebral lobes above the lateral ventricle. The lesion must have been in parts not very vascular, without effusion into the ventricle of the opposite side.

According to the author, from so many proofs there is not only demonstrated the insufficiency of the old theory of the motor fibres, but it is, moreover, proved that one-half of the brain is sufficient for the movement of both sides of the body.—*(Il Morgagni e Arch. Ital. per le Mal. New.—Gaz. Med. Ital.)*

THE CANADIAN

Journal of Medical Science,

A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

To Correspondents.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of Country or Territorial medical associations will oblige by sending their addresses to the corresponding editor.*

TORONTO, JANUARY, 1877.

UNIVERSITY DISAFFILIATION.

However strange it may appear for the wolf and lamb to drink at the same spring, yet not more so is it than to see the *Globe* and *Mail* join hands in attacking the Ontario Government. How insufferably they must have been *bored*, before two such incorrigible antagonists would agree to harp on the same chord. It would seem as if the very existence of some of the Medical Schools depends upon their affiliation with the University of Toronto, so piteous is the wail at its loss.

It is strange, however, that the value of the affiliation was only discovered when it was swept away, for, surely, it must have been prized very lightly by those who now mourn so sadly, when we find that, in an aggregate of 257 who graduated in medicine at the University of Toronto, between the years 1855 and 1876, only four were from Victoria College, four from Trinity College, and three from Queen's College, while 236 were from the Toronto School of Medicine. During the same period, 611 graduated in Victoria College, 82 in Trinity College, and 264 in Queen's College.

Now, since the Act of 1873 placed a large measure of the responsibility for the success of the University in the hands of the graduates in convocation, and as all the late affiliations had been effected under the old *regime*, we hold that the Government could not do otherwise than remove all existing obstructions, so that the new Senate and Convocation could model and work the University in conformity with the spirit of the amended Act, and in such a way as

would be more likely to conduce to its success and usefulness.

The University, being thus freed from its supposed encumbrances, those who are presumed to have most interest in its welfare can now go to work, untrammeled, and build up an institution more in accordance with the genius of the age, and, possibly, better adapted to the wants of the country.

There is nothing in the present Act to prevent a re-affiliation, but each application for such will have to be considered on its own merits by those who are made responsible for the successful working of the University, and, as all but two of the disaffiliated Colleges have notified the Minister of Education that, being connected with other Universities, they have no desire for affiliation with that of Toronto, the duty of deciding upon any future applications in that direction will be comparatively easy.

We do not see how the control of the University could be placed on a wider basis than it is at present, or one more likely to ensure a proper regard for the interests of the whole people, seeing that all matters relating to its management, and its connection with other institutions, must be approved, first by the Senate, then by Convocation, and finally sanctioned by the Lieutenant-Governor in Council.

If such a governing body cannot be trusted to do what is best for all parties, without the dictation of a few restless and carping wire-pullers, the morality of the country must be at a very low ebb indeed.

Now that the University is free from all former affiliations, it is competent for the Senate and Convocation to establish such conditions for any future alliance as may appear best calculated to advance the general good, and we have no doubt that, as all their acts must be confirmed by the Governor in Council, before they can have effect, the interests of all parties will be most fully protected.

There is a statement in one of the city papers which, if uncontradicted, might lead to misapprehension in regard to the Toronto School of Medicine.

That School only sends ONE representative to the University Senate, and if the graduates in Arts and Medicine of the University, throughout the country, elect four members of the Toronto School to represent them on the Senate, in preference to those connected with other institutions, it only proves that the efforts put forth by these gentlemen for the elevation of the profession, for the maintenance of a high standard of education, and for the support and integrity of the Provincial University, are recognised by its friends and alumni.

AQUA PUNCTURE.—Several paragraphs have been copied by us from our exchanges on this subject, and we were induced to give the method a trial, in a case of sciatica now under treatment. On some occasions we injected four or five syringes of warm water, and on other occasions we used cold, the syringe holding half a drachm. Under the most careful observation, we could detect no difference between the effects of the warm and the cold injections, unless it was that one produced more pain than the other, and one was more useless than the other, but for the life of us we could not decide which. Our patient was very glad when we went back to the morphia injection, although he did not know that we were experimenting on him. Our opinion is that Aqua Puncture is absolutely worthless for the relief of pain, and each separate injection produced a violent, burning, stretching pain in the part, which lasted for three-quarters of an hour, and was followed by *no* relief to the neuralgia.

PALMAM QUI MERUIT FERAT.—In our November number we omitted to credit the article on "The Radical Cure of Inguinal Hernia," by C. F. Gay, M. D., to the *Archives of Clinical Surgery*, for October, In our October number the article on "The Use of Drainage Tubes in the treatment of Amputation of the Breast," was taken from the *Archives of Clinical Surgery* for August. The cases were reported for that journal by T. A. Ashby, M. D., Resident Physician of University Hospital, Baltimore.

CORRECTION.—In the article on Phosphide of Zinc, in our last issue, a typographical error made the quantity of phosphide of zinc, in the formula given at the end, read "grain $1\frac{1}{10}$," instead of simply "grain $\frac{1}{10}$."

BOOK NOTICES.

"*On Coughs, Consumption, and Diet in Disease.*" By HORACE DOBELL., M. D. F.R.M. C.S., etc., Philadelphia. D. G. Brinton, 115 S. 7th Street.

"*Notes on Syphilis in the Insane.*" By W. JULIUS MICKLE, M.D., Medical Superintendent, Grove Hall Asylum, London. Part II.

We append a curiosity in the way of book reviews. It is taken from the *Edinburgh Medical Journal* for Nov., 1876, and is upon "*A Contribution to the Treatment of Uterine Versions and Flexions.* By Ephraim Cutter, A.M., M.D. Second edition. Boston, 1876." It is given *in extenso.* "Second edition. Weeds do thrive, even under the patronage of Dr. Gaillard Thomas, Questionable preface, bad anatomy, bad woodcuts, bad pathology, bad treatment. We recommend our readers not to buy this book." The trumpet of this reviewer gives forth no uncertain sound.

RETURN OF AN ANCIENT DISINFECTANT.—The oldest disinfecting process on record is burning sulphur. When Ulysses had slain the suitors of Penelope, he burned "purifying sulphur" in the blood-stained hall. Perhaps none better has since been found. The *Lancet* remarks that, in the second edition of a pamphlet on the subject of burning sulphur fires in epidemics of cholera, Surgeon-Major Dr. Tuson, of the Indian Medical Service, gives several illustrative examples from his own experience of the efficacy of this method of procedure. He states that he has, on four occasions, observed the marked effect of sulphur fires in arresting the progress of the disease. Attention to certain points is considered of consequence. All the fires should be lighted at one and the same time, and the sulphur be sprinkled on them simultaneously. The piles of wood should be good large heaps, so as to last several hours · they should be placed at distances of from forty to fifty yards, to surround a village, particularly to the windward of it, and in places where cholera has its habitat. The fires should be kept up for twenty-four or forty-eight hours, at least.—*Med. and Surg. Rep.*

Communications.

To the Editor of the CANADIAN JOURNAL OF MEDICAL SCIENCE.

ANTISEPTIC SURGERY.

The subject of antiseptic surgery, and the question of the cause of putrefaction and of suppuration, have obtained some notoriety, of late, by a lecture, delivered by Prof. Tyndall, at Glasgow, and published in a popular journal, upon "Fermentation and its Bearings on the Phenomena of Disease;" and also by the appearance of Prof. Lister, the father of "antiseptic surgery," at the International Medical Congress, held in Philadelphia in September. In the capacity of Chairman of the Surgical Section, Prof. Lister endeavoured, in season and out of season, to press upon his hearers his theory and practice with regard to the treatment of wounds; in doing which, the urbanity and courtesy of the section was somewhat tried. The assiduity and determination of Prof. Lister and some of his enthusiastic, but often inexperienced followers, are very remarkable. In this day of change and reform in the medical profession, and with the receptive spirit characteristic of a liberal body of men, one would suppose that any theory or practice, if based on science and common sense, would not require so much missionary work. If Prof. Lister would convert his colleague, Prof. Spence, who occupies the Chair of Surgery in the Edinburgh University, and account for the fact that that surgeon, by the power of nature, aided by cleanliness, is, at least, quite as successful as Prof. Lister is, with all his "fixings," he might stand a better chance as a preacher abroad, and his neophytes might air their hobby to better advantage.

Prof. Tyndall's lecture is a carefully-prepared argument against spontaneous generation in any form; and, in support of his doctrine, he has occasion to refer to Prof. Lister's practice, and declares that he has secured a "specific against putrefaction and all its deadly consequences." From this, it might be supposed that the medical profession, or a majority of its members, had accepted Lister's views. Because a surgeon employs carbolic acid, or similar agents, in the treatment of wounds, is no proof that he believes

Lister's theory of germ putrefaction and suppuration. The fact is that comparatively few hold that belief. Against a comparatively small number who have adopted his method, a large number have rejected it, with the conviction that other treatment, less troublesome, is quite as, if not more, successful. The fact that the representative surgeons at the Congress referred to, after patiently and closely listening to his exposition, (and a leading surgeon of New York told Prof. Lister that the Americans were not ignorant of his teachings,) refused to endorse his doctrine, is sufficient proof that, in the United States, his views are not believed in. And I have yet to learn that they are by any of the experienced and leading surgeons in Canada.

No one, however, we believe, disputes the views of Pasteur as to the presence of germs in the air; and the nature of fermentation, as described by Tyndall, may be quite true. The analogy between fermentation and zymosis has long been recognised. But the question is: Have these theories or facts anything to do with putrefaction? Is it true, or untrue, that putrefaction cannot take place without the presence of germs? Is it a fact that animal organic matter, when deprived of vitality, will remain undecomposed for an unlimited time, unless bacteria seize upon it, and that no chemical power or physical force can reduce it to its original elements? Decomposing organic matter, we know, by daily observation, is the abode of a low, degraded animal life, and the soil in which low forms of vegetable life take root and grow. But, are we to regard this as the cause or result of putrefaction? Now, if it be admitted that putrefaction may take place as a chemical process, in the absolute absence of bacteria, it is begging the question to say that their presence is ever necessary. Where is the surgeon who has not seen putrefaction take place beneath an unbroken integument? This fact was accounted for by Prof. Hodgen, the reporter on this subject at the Congress, on the supposition that the bacteria reached the place of putrefaction through the stomach or lungs, and the blood. He also declared that bacteria had been found in wounds beneath Prof. Lister's most elaborate and carefully-prepared dressing. This explanation of Prof. Hodgen's was certainly plausible, when we accept the doctrine of *contagium* by zymosis; but, as the writer then pointed out, if this be true, Lister's external appliances are utterly useless. The swarming organisms may laugh at the locked front door, when the back one is wide open. But, Prof. Lister took occasion to repudiate this doctrine; and no wonder. For, if true, Lister's occupation would be gone. But, in repudiating this view of the matter, it became necessary to make the admission which he did, that putrefaction does not always depend upon bacteria, but may take place as a chemical process. The writer then submitted to the section, and he now submits, that, if it ever occurs without the influence of bacteria, it is impossible to prove that their presence is ever necessary. In practice, it is no uncommon experience of surgeons to see wounds of all kinds heal rapidly without putrefaction, although no steps are taken to place a barrier to the entrance of air-germs, or to destroy those which may have lodged in the part. At the meeting of the Canadian Medical Association in Toronto, last August, and also at the Medical Congress, the writer spoke of two cases he had had under his care in the Toronto General Hospital. As a result of a railway accident, two men had been injured—both in the legs. They were placed side by side in the ward. One had severe bruised wounds; the other, severe bruises, but no wound. There was no solution of continuity of the skin. The man with the wound was treated with water dressing, and healing took place rapidly, with remarkably little suppuration. The other man did not do so well. After a few days, it was found that suppuration had taken place in the bruised part. Upon opening these abscesses, for there were several, the pus was found to be highly fetid, indicating putrefaction. It was the relating of these cases which caused Prof. Hodgen to make the statement above given, and Prof. Lister to admit that putrefaction may take place independently of bacteria.

In the domain of physics, we find the laws of nature always orderly In the domain of animal and vegetable life, certain laws prevail;

outside of that, chemical laws bear sway. In the process of germination, growth, development, and sustenance, we have an invariable order of nature. But, when a body, which has been formed by vital processes, ceases to possess vitality, then, it is submitted, that body comes under the rule of chemical laws. And it is in the order of nature that such a body should be resolved into its original elements, unless some other chemical power be applied to prevent it, as in the use of common salt to preserve meat, and carbolic acid to prevent putrefaction.

Respectfully,

Wm. Canniff, M.D.,
M.R.C.S., England.

Toronto, 13th Dec., 1876.

[We have long entertained the belief that the cleanliness and care had more to do with the success of Lister's method than the special virtues of carbolic acid had.—Ed.]

Atropia as an Antidote to Hydrocyanic Acid. Jackson. (*Druggists' Circular*, Jan., 1876.) In experimenting on dogs, Dr. J. says: Sulphate of atropia, in doses of one-fourth of a grain to one grain, injected under the skin, gave prompt relief in every case, even when large doses of the acid had been given. When the two poisons are administered at the same time none of the effects of prussic acid are developed; but if as much as a grain of sulphate of atropia be injected, all the symptoms of atropia poisoning are observed. In some instances the antidote was withheld until the animal would fall down, and the respirations would be as few as six per minute, the dog being unconscious, then one-fourth grain of the antidote would relieve him immediately.—*Chicago Med. Journal and Examiner.*

Medical Society of London.—On Monday, the 6th inst., a general meeting of this Society was held, Mr. W. Adams, President, in the chair. Amongst others a most important resolution was proposed by Dr. Hare, seconded by Dr. Lawson, and unanimously carried by the Society, to exclude persons of the female sex from either becoming fellows of the Society or from being introduced to it as visitors.

Miscellaneous.

Extract from Order in Council.—"That the several Schools of Medicine, affiliated or claiming to be affiliated with the University of Toronto by the Report of the Senate of the year 1854, be no longer considered affiliated with the University, and that said former affiliations be deemed to cease at the expiration of the Academic year now current.

Remedy for Dandruff.—A French physician (*Apoth. Ztg.*) claims to cure this troublesome affliction by applying a solution of chloral hydrate, containing 5 per cent. of the latter, by means of a sponge, and repeating it every morning. If the hair has fallen out in consequence of the dandruff, it is claimed that the said hair will reappear in a month.—*N. Y. Medical Record.*

Cause of Decay of the Teeth.—Dr. L. B. Palmer, of New York, has been led to conclude from a series of experiments that the decay of teeth is not, as is generally supposed, due to acids, but to alkalies. With alkalies he reproduced decay of the teeth as it is seen in the mouth, but was unable to do so by acids. With the assistance of an electric current, acids simply acted on and destroyed the whole of the enamel.—*N. Y. Medical Record, from Am. Jour. of Dent. Sc.*

Poisoning by Medicinal Dose of Iodide of Potassium (*The Medical Press and Circular*, August 2, 1876).—Dr. Charles Drysdale reports the case of a man, æt. 36, who was suffering with right hemiplegia, which had evidently been caused by an embolism, as there were abnormal sounds of the valves of the heart. As some symptoms in addition pointed to dilatation of the ascending arch of the aorta, he had on three several occasions prescribed ten-grain doses of the iodide of potassium thrice daily in water. On the first two occasions the effect was to produce a crop of acne-like pustules on the face. The last trial, which lasted three days, brought forth an alarming-looking eruption on the backs of the hands, as well as on the face and chest. Blebs were formed containing a bloody fluid, which lasted without desiccating for some weeks.

THE ROYAL SOCIETY.—The following is the award of medals for the present year by the Council of the Society :—The Copley Medal to Professor Claude Bernard, For. Mem. R. S., for his numerous contributions to the science of physiology ; a Royal Medal to Mr. William Froude, F.R.S., for his researches, both theoretical and experimental, on the behaviour of ships, their oscillations, their resistance, and their propulsion ; a Royal Medal to Sir Wyville Thomson, for his successful direction of the scientific investigations carried on by Her Majesty's ship *Challenger ;* the Rumford Medal to Mr. Pierre Jules César Janssen, For. Mem. R.S., for his numerous and important researches in the radiation and absorption of light, carried on chiefly by means of the spectroscope. The medals will be presented at the anniversary meeting of the Society on the 30th inst.—*London Lancet.*

CONGENITAL STRIPED-MUSCLE SARCOMA OF THE KIDNEY.—The kidneys (Virchow's *Archiv*, Bd. lxv.) were from a child which was healthy during the first twelve months after birth, then sickened, and died three months later. Both kidneys were invaded by tumours, which were found on microscopical examination to be composed of striped muscular fibres. The fibres were small, long, and interwoven. A sarcolemma was not discovered. In other parts, but not so plentifully, the typical structure of a sarcoma was found. This is the first time that these very rare tumours—striped muscle sarcomata—have been found in the parenchyma of the kidney, where their presence constitutes a veritable monstrosity. The fact that both kidneys were affected tends to show, according to Cohnheim, that there was an original faulty growth, and not a metastasis. It is impossible to understand what the histological elements were that formed the point of departure for the muscular fibres.—*London Med. Record.*

EFFECTS OF CUTANEOUS IRRITATION ON THE KIDNEYS.—Betweeen the skin and the kidneys, both excretory organs, there undoubtedly exist relations of a peculiar kind, altogether independent of the vicarious or compensatory offices they are able to perform for each other. A distinguished German physiologist, Herr Wolkenstein, has recently published the results of a long series of experiments designed to throw light on this obscure subject :—The experiments were all performed on healthy rabbits. A superficial area of twenty-five square centimetres having been shaved, various irritants, such as oil of mustard, tincture of iodine, mercurial ointment, croton oil, solution of tartarated antimony, &c., were applied to the skin. The urine was collected and examined at frequent intervals. The application of the milder irritants was followed by slight and transient albuminuria, without any evidence of structural change in the renal tissues. When the skin was more severely irritated the urine contained a larger proportion of albumen, together with renal epithelia and casts. Death not unfrequently occurred preceded by convulsions, probably of uraemic origin. Microscopic examination of the kidneys showed the appearances characteristic of acute parenchymatous inflammation. This artificial nephritis was attended by increased frequency of the cardiac and respiratory movements. The urine was diminished in quantity ; it contained more urea and less chlorine than in health. Wolkenstein ascribes the renal disorder to two different sets of causes. The irritant may be absorbed into the blood and exert a selective action on the epithelial elements of the kidney or on the walls of the renal capillaries (as, *e.g.*, cantharides) ; or the fever induced by the inflammatory process in the skin may give rise to constitutional effects, of which the nephritis may be one.

INSANITY.—The late war has not left us all its legacies—the next generation will bear its cruel stamp. Excess in all its forms is a national sin : in eating and drinking, in gambling and extravagance, in the rush of social emulation, and the mad excitements of wealth and ambition. Men are dropping around us every day, with paralysis and apoplexy. Hundreds are yearly added to the rolls of the insane, whose families are ruined, their wives broken-hearted, their children thrown as waifs on the tossing sea of destiny.

Let us take comfort that science can do so

much to heal the wounds of the brain, and break down the barriers between tne mind and body. The venerable Dr. Chipley utters these words of consolation and of hope:—

"There is, in fact, a power in man to prevent or control insanity, and it fails chiefly when it has been misdirected in the earlier periods of life. This power is rarely efficient unless it has been developed and strengthened by education; and hence the poor and unschooled are the greatest sufferers from the most terrible of all human afflictions. For example, the educated and the uninstructed are alike the subjects of illusions; but the trained mind of one will recognize their true character, and adopt suitable measures to correct the morbid condition on which they depend; while the other, unable to reason, will accept them as real. The illusions may be precisely the same, yet the one subject is sane, and the other insane. The difference is in the organ of self-control. Vagaries intrude themselves upon all minds, but the man of self-control represses them, and seeks fresh impressions from without—the weak man yields to them, and is lost."

Let our children be brought up in sound and healthful habits of mind and body. Let us rein in the passions that would enslave us. Let us not flee the wretched lunatic as one accursed of God, the object of curiosity or of horror; but rather enfold him in the arms of a charity and a sweet compassion, whose great Exemplar did not disdain to "heal the sick."—(*Grissom, in Virginia Medical Monthly.*)

THE COUNTRY DOCTOR. — The "country doctor" has comparatively few advantages; for while his practice embraces the whole range of medical and surgical service, his opportunities for outside aid and improvement are meagre and limited. His resources are his self-reliant skill and faculty, his native good sense and good judgment, and what there is in him of heroic worth and virtue. With no ready chance for mutual consent, he stands alone; and he must of necessity be plucky, sharp of observation, cautious, yet with quick sense of apprehension. He must be capable of acting at once, of doing the right thing at the right time, and of doing it as perfectly as possible A human life hangs in the balance, and with what of courage, insight, and ability there is in him, he must wrestle alone with the danger. Circumstances and exigencies like these ripen his native qualities, and bring him occasions which test the temper of his mental fibre as well as his firmness and force of character.

Then, again, this work, with all its demands and difficulties, comes under the immediate notice of every one. The country practitioner goes at once to the front, to be seen and known of all. His qualities as a man, his capability to perform successfully the duties of his calling, will be sharply criticised by all. The people among whom he dwells belong mostly to that great middle class which holds together the extremes of society; intelligent people, capable of forming correct judgments. Before such judges stands the "country doctor," and there is no chance for hiding behind subterfuges, or for shirking responsibilities. No petty artifices will excuse blunders or stupidity; sharp eyes follow him everywhere, constantly observing, and discerning "what manner of man he is."

Dr. Samuel Johnson, in his criticism on Dr. Akenside, the poet, says, "A physician in a great city seems to be the mere plaything of fortune; his degree of reputation is for the most part totally casual. They that employ him know not his deficiencies." In the country the case is far different. There the analysis of character and ability is more complete; for there that distinction is less which comes from position and wealth; and every one, rich or poor, man or woman, counts at a full rate in the expression of opinions.

But an attractive feature of country practice grows out of the free, yet respectful, intercourse, which constitutes one of the main sources of pleasure and help of country life. Known by every one, if intelligent and educated, possessing a warm heart and generous sympathies, "the country doctor" gains respect, esteem, and love. He, in turn, learns to know his people—even better than they know themselves. He knows them from birth; "knows what stock they are made of;" knows their constitution, their habits of life, their social and moral qualities, and their secrets, too;

and, "king of health in his own regions," thus understands full well how to manage their physical ills deftly and safely. To them he is the friend, the comforter, and the adviser; and he becomes, what is growing rare in cities, the family doctor, in whom all confidences meet and rest, and in whom all hopes of human aid are centred in times of trial, sorrow, and impending dissolution.—*Boston Journal of Chemistry.—Peninsular Med. Jour.*

THE GERM THEORY OF DISEASE AND VIVISECTION.—On October 19th, Professor Tyndall opened the winter course of popular scientific lectures in Glasgow. He chose the process of fermentation as the subject of address, and in connection therewith discussed the germ theory of epidemic disease. Two hundred years ago, he said, Robert Boyle wrote in his essay on the Pathological Part of Physic, "that he that thoroughly understands the nature of ferments and fermentations shall probably be much better able than he that ignores them to give a fair account of divers phenomena of several diseases (as well fevers as others) which will, perhaps, be never properly understood without an insight into the doctrine of fermentations." But it was only in this our day that men were beginning to realize the truth of these pregnant words. In the domain of surgery, Professor Lister, of Edinburgh, had demonstrated in his antiseptic treatment that the putrefaction of wounds was to be averted by the destruction of bacteria. Passing from surgery to the domain of medicine, he said the conviction was spreading and growing daily in strength, that reproductive parasitic life was at the root of epidemic disease—that living ferments finding lodgment in the body increased there and multiplied, directly ruining the tissue on which they subsisted, or destroying life indirectly by the generation of poisonous compounds within the body. This conclusion, which came to us with a presumption almost amounting to demonstration, had been clinched by the fact that virulently infective diseases had been discovered with which living organisms were as closely and as indissolubly connected as the growth of torula was with the fermentation of beer. And here he wished to utter a warning to well-meaning people. We had now reached a phase of this question when it was of the very last importance that light should once for all be thrown upon the manner in which contagious and infectious diseases take root and spread. To this end the action of various ferments upon the organs and tissues of the living body must be studied, the habit of each special organism concerned in the production of each specific disease must be determined, and the mode by which its germs are spread abroad as sources of further infection. It was only by such rigidly accurate inquiries that we could obtain final and complete mastery over these destroyers. Hence, while abhorring cruelty of all kinds, while shrinking sympathetically from all animal suffering—suffering which his own pursuits never called upon him to inflict, an unbiased survey of the field of research now opening out before the physiologist caused him to conclude that no greater calamity could befall the human race than the stoppage of experimental inquiry in this direction. A lady whose philanthropy had rendered her illustrious said to him some time ago that science was becoming immoral; that the researches of the past, unlike those of the present, were carried on without cruelty. He replied to her that the science of Kepler and Newton, to which she referred, dealt with the laws and phenomena of inorganic matter, but that one great advance made by modern science was in the direction of biology or the science of life, and that in this new direction scientific inquiry, though at the outset pursued at the cost of some temporary suffering, would in the end prove a thousand times more beneficent than it had hitherto been. It was exceedingly important that such assemblies as that which he was addressing should see clearly the issues at stake in such questions as this, and that the properly informed common sense of the community should temper, if not restrain, the rashness of those who, meaning to be tender, would virtually enact the most hideous cruelty by the imposition of shortsighted restrictions upon physiological investigation. It was a modern instance of zeal for God, but not according to knowledge, the excesses of which zeal an instructed public opinion must correct.—*Mail.*

APPOINTMENTS.

W. F. Scott, M.D., McGill College, Hull, Canada, has been admitted M.R.C.S.Eng.

Milton M. Tucker, M.D., Toronto, likewise.

William Hanover, of the Village of Almonte, Esq., M.D., to be an Associate Coroner in and for the County of Lanark.

Robert George Brett, of the village of Arkona, Esquire, M. D., to be an Associate Coroner in and for the County of Lambton.

John McBain, of the village of Martintown, Esquire, M. D., to be an Associate Coroner in and for the United Counties of Stormont, Dundas, and Glengarry.

Alfred Bray, of the village of Angus, Esquire, M. D., to be an Associate Coroner in and for the County of Simcoe.

James T. Munro, of the village of Notfield, Esquire, M. D., to be an Associate Coroner in and for the United Counties of Stormont, Dundas, and Glengarry.

Births, Marriages, and Deaths.

BIRTH.

On the 7th December, at 47, Gould Street, the wife of H. E. Buchan, M.A., M.D., of a daughter.

DEATH.

On Saturday morning, the 2nd November, at the residence of Dr. Barrick, 97, Bond Street, William Newcombe, Jr., aged 18 years, eldest and only son of Dr. William Newcombe, of this city.

International Exhibition, Phila., 1876.

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TORONTO. FEBRUARY. 1877.

Selections: Medicine.

THE SYMPTOM NUMBNESS.

CLINIC OF S. WEIR MITCHELL, M.D.

In the case before you, as in the last one which presented itself, the patient complained of feeling numbness in the extremities. I am not sorry to have the chance to say a few words to you on this subject. Numbness is the word used for several forms or varieties of sensations not found in health, or, I should say, in perfect health. It is used both by patients and doctors, but, whenever used, needs to be accurately described, and then related to the other symptoms present, before we can respect it as a defining symptom. To the patient who has experienced it for the first time, it is alarming, but really, like most symptoms, it is sometimes of much meaning, and sometimes of little.

In the present case, the patient, a hard-worked woman, with natural tendencies to easy emotional manifestations, emphasized, as these always are, by anæmia, tells us that she began to suffer last spring, from what she calls numbness of the feet and hands. We carefully question her, and learn that this means that, when tired or worried, she has a feeling as of the parts named being asleep; she calls it a "*prinking;*" that this is worse in the evenings, and that early in the morning she is free from it. The æsthesiometer shows that we have no loss of touch, and there is an absence of all signs of paralytic trouble in brain or cord; neither can I call this a hysterical symptom, although it is found in a hysterical woman. If forced to speculate on its cause, I should conclude it to be due to defect of nerve nutrition in the extremities, and associate this with thin blood, under-feeding, and too constant work, with that which makes the cruel friction of all work, bodily and mental—worry.

But, speculate as we may, of this, at least, I am certain, and that is, of curing her; and, first, I shall assure her that this is not the kind of numbness which precedes paralysis. And what next shall I say to this wretched slave of work, this weakening, pallid girl, whose hysterical states have driven her parents to consent to any needed measure? It is vain to say take rest; the demands of home are unrelenting. It is useless to order good diet. With abundant food, the mechanic's wife knows of but one cooking utensil—the national frying pan. I shall take this girl into the hospital, and, setting mind and body both at rest, feed her well and often, and then, with good hope, give iron freely. It would be valueless to do this at her home, for iron is a drug which often fails to act without certain aids; and curable anæmia, once well established, may continue to exist under bountiful doses of iron, if only there be present some steady cause of moral disturbance, or some slight physical difficulty, some cause which gives annoyance or slight pain, or disturbs sleep; but, put these aside, and the iron becomes active for good. Indeed, to habitually over-worked folks, like some labourers and sewing women, an accident which puts them on their backs for five or six weeks in a well-ordered hospital is of great value. They get up again fat and well, and with what the people aptly call "a new lease of life."

But I have been led away from the subject

of the symptom numbness. This girl's case reminds me of a class of cases of which I see many, and which have come to form for me a distinct clinical group, a neurosis.

A man (it is nearly always a man) over worked, or a student who has used his mind too steadily at the age of growth, begins to have, and it is usually in the spring-time, tingling of the hands and feet. Very often I can find no sign of anæmia or of remarkably lowered health. All the functions are in order, and the appetite and digestion are sometimes faultless, but nearly always the heart is irregular, in spells, especially at night. Then, also, there is sure to be a sense of weight or pain at the occiput. The numbness is purely subjective. It at times invades the whole skin, and the face and scalp are favourite sites. It is here felt in islands, and with it there is often a feeling as if the facial skin were drawn tight. The numbness in these cases is sometimes intense, and the prickling feeling so great as to be painful. I have heard one sufferer remark that he had once been poisoned with aconite, and that the formication was like that which he then felt.

When this "all-asleep feeling" is most vivid, there is apt to be with it a noise in the head, a faint singing, which is not usually referred to the ears, but is felt in the occipital region, with considerable irregularity of the heart's action. In the graver cases, the finger tips often burn severely, and there are at times, in the hands and feet, islets of vasal dilatation. More or less insomnia and general nervousness completes my picture, or rather my sketch.

The numbness which this curious neurosis presents, although most alarming to the patient, is really free from danger; yet, also, it is an obstinate malady, unless, at the outset, it be broken up by some complete change in habits, occupation, and residence. After a while, it is not readily relieved, or rather cured, even by travel abroad, but is apt to return, again and again. The regular life of a well-ordered water cure, with mild use of spinal douches, or shower-baths, I have seen to be of great value, but I do not know of a single water cure in America which commands the full confidence of the profession, and, unluckily, travel in Europe is not at everyone's disposal.

I am puzzled in many of these cases by the fact that the patient seems to be in a good state of physical vigour, so that tonics appear not to be indicated, and are, indeed, as a rule, useless; at least, I should say, tonic drugs are valueless; but riding on horseback, exercise a-foot, the life of the camp in summer, utter revolution in the ordinary habits—these forms of tonic are serviceable when used with discretion, and one of them, the out-door camp life, is in the power of a vast number of our people.

I have said that you would find this group of symptoms obstinate and troublesome under any treatment, but you will also find that the cases you do not cure get well as time goes on, the changes in life or habits, or the natural revolutions which time effects in all of us, being often sufficient to cure.

There is another form of numbness which may, or may not, be free from dysæsthesia. I think I mentioned it, a few weeks ago, in connection with a case of general nervousness; at all events, I have been frequently consulted for it. It belongs only to the night, and cannot be confounded with that numbness, with loss of power, which comes of sleeping with the arm bent in some awkward position, or so situated that it is subjected to pressure on one of the main nerves. Of this we see, almost every week, good examples, but the form of trouble I now desire to recall to your attention is rare.

The last case seen at this clinic was a middle-aged woman, who was in rather feeble health. Now and then she awakened with numbness of the whole side, right or left. She was not clear as to whether it affected the face or not. After an hour or more, it gradually faded away. Sometimes it attacked a single limb, but this was rare. I used to fear this symptom, and suspect that it might presage a true hemiplegia, but I have now seen it so often in people, who suffered no evil consequences, that I have ceased to dread it. It usually yields to tonics, and is one of the many nameless neuroses which are seen by busy city physicians, and which require that general fortifying of the system which is the most effectual means of dealing with such disorders as grow out of the constant strain and struggle to which modern civilized life subjects those who are involved in its vortex.

When this symptom numbness occurs in daytime, as a unilateral trouble, and is associated with headache, or noises in the head, and is found also in the face, and involves some thickness of speech, it is a graver matter. When, also, it occurs in people past fifty, and when there is with it any tendency to inco-ordination of movements in the hand, and the least trace of lessened sense of tact, it should at once put the physician on his guard. Then there is another question to solve. If the patient be weak and anæmic, the path is plain, and we need to use good diet, cod-liver oil, and tonics. If there be grave valvular disorder of the heart, we may suspect that a minute embolus has entered one of the vessels, and so affected the blood-supply of the regions in or near the opposite side of the optic thalamus, or the posterior parts of the corpus striatum. But, if the sufferer be a vigorous man, in general good health, with or without distinct evidence of altered vascular walls, there is one remedy which I am sure is of value. It is simply a change of diet to milk, and vegetables, and fruit, and a total abandonment of all meats. I do not mean to pause here to reason on the why and the wherefore of this treatment. I can only assure you, from long experience, that it is of the utmost value, and that the change is often followed by a continued sense of relief from the numbness, and from all feelings of pressure and fulness. Of course, as everyone knows, the organic palsies of the spine are apt to set out with sensations of numbness in the feet. These, at first, are often unassociated with true, or, at least, with perceptible changes in the capacity to feel, or to localize touch, although this is apt very soon to follow, and to end in more or less dysæsthesia. There is no need to dwell on such well-known facts. I should like, however, to remind you that lead poisoning sometimes gives rise to formication, that ague poisoning occasionally assumes this disguise, and that both in Bright's disease and saccharine diabetes numbness of the limbs may be met with. I have seen, within a week, illustrations of both of the latter causations.

A lad of eighteen consulted me last week for formication of the feet, without dysæsthesia. He told me that he had had, three years before, scarlet fever, followed by slight general œdema; but the water had not been examined. The left eye-ground showed three small splotches of old retinitis, and he had evidence, also, of mitral regurgitation. The urine was highly albuminous, and had in it an abundance of fatty and granular casts; also, the feet were slightly swollen. Under the use of skimmed-milk diet, with tinctura ferri in full doses, the numbness is already much better, and the œdema has gone.

Numbness from diabetes is a yet more serious symptom, because it is associated with true anæsthesia, and is due, I believe, to plugging of the peripheral blood vessels. I have seen it but two times in this disease; once it was a simple subjective sense of formication, and once it was a grave trouble, resulting in gangrene of one foot, and death. Sometimes, however, the slough is local and small, and recovery takes place. I have thus run over some of the rare causes of numbness, and some of the more common ones, but whenever it exists, you will do well to study it thoroughly, because, whether it has been as a mild tingling, without dysæsthesia, or as a profound and lasting symptom, with grades of lack of feeling, it is always a valuable symptom, when viewed with the other signs, which it in turn helps to make clear.

The sensation of prickling, of being asleep—in a word, of numbness in its various forms and degrees—is due always to a slight irritation of the nerves, or their connected nerve centres, so that at any point of a nerve track, from the sensory ganglia to its endings in the skin, a slight irritation will give the referred sensation we have been discussing. In the extremities, we can cause it by rolling a nerve under the finger, or by an electric current through it, or by freezing the nerve at any point; and thus, in the chapter of accidents, tumours, pressure from any cause, blows, wounds, anything which slightly hurts without destroying, may cause numbness. So, too, in the centres, all disturbances of nutrition from imperfect circulation, or from small emboli, may cause it, while it is probable that the intrusion on the brain of small aneurismal dilations of minute vessels, such as Charcot has described, may have a like result, and also, it seems, that in the presence

of increased blood pressures this symptom may get worse.

Numbness is often associated with other forms of what Erb calls paræsthesia, as distinguished from dysæsthesia and hyperæsthesia. Among these are sense of local constriction, of burning, of elongation of the limb, a very rare symptom, but nearly all of these curious forms of morbid feelings are due to cerebral disease, and well repay a fuller study and a more detailed description.—*Med. and Surg. Reporter.*

EXTRAORDINARY CASE OF INTRA-CARDIAC CYST.

BY EDGAR HOLDEN, M.D., OF NEWARK, N. J.

In view of the vagueness of the prevalent idea concerning heart-clot and polypus of the heart-cavities, it is not surprising that the fibrination due to the churning of the blood in articulo-mortis, or the coagula post-mortem, should be mistaken for veritable polypi.

The following case, copied from notes taken at the time of attendance, and verified by autopsy, will perhaps prove of interest, especially as the remarks of Rokitansky, vol. iv. p., 167, quoted below, seem almost as though written for this particular instance :—

A. B., æt. 35, a stout, robust, and healthy man, but somewhat given to excesses, while making his toilet on Monday morning, April 10, 1876, fell to the floor in a state of unconsciousness, with an involuntary evacuation of the bowels. Called immediately, I found the patient fully conscious, but fainting upon the least motion of head or even hands. No pulse at the wrist, and the heart beat so rapid as to seem almost like a continuous thrill, but regular and of even force. Temperature 99°. Believing the attack to be one of acute palpitation from use of strong tobacco, from which he had once before suffered, anti-spasmodic and stimulant treatment was resorted to, with such apparent success, that on the next day he was able to sit up, and even to go out for a walk.

April 12. At 5 A. M. occurred a sudden relapse, faintness, no radial pulse, no carotid pulse, contracted pupil, indescribable agony, yet with no pain. Anodynes, anti-spasmodics, hot douches, and stimulants gave but slight relief; an emetic of mustard water gave a little ease. and placing the head lower than the body, to favour cerebal circulation, was also beneficial for a brief time. Tem. 99°.

13th. No improvement, no rest or sleep. I succeeded in counting the heart-beats, and after several attempts verified the count at 204. Respiration normal. Ice to the spine, Hoffmann's ether, strychnia, etc., producing no effect, and the rhythm of the heart being unaffected, ventured next day to give digitalis in small doses with musk, but was speedily admonished, by the increased suffering of the patient, to discontinue.

14th. No improvement, great jactitation, constant and indescribable agony, no pain, head still clear, bowels and kidneys free, no voluntary evacuation since the first day. A consultation was now held with Dr. Southard, and bromides resorted to in large doses, but with no effect. As no effect followed any medication, all allusion to subsequent treatment will be discontinued in the report. *No sleep now for six consecutive days.* Morning temperature, 101° ; evening, 100° ; heart-beat, 216 ; respiration, 14 per minute.

16th. Stertor ; involuntary evacuations, and for the first time a subdued friction sound over the base of the heart. Morning temperature, 97°. Evening, 97°. No delirium, less tendency to syncope ; raised up without increased suffering ; no dyspnœa.

17th. Morning temperature, 96·5°. Evening, 97°. No other change.

18th. Temperature, A. M., 96°. A flutter-pulse at wrist ; quiet sleep ; easy respiration, but sighing ; pulse (by counting over the heart), 220 ; face flushed ; feels better.

19th. Temperature, A.M., 95° ; P. M., 97·5°. Supposed effusion ; the heart beats seeming slightly muffled ; faintings frequent, even without exertion.

20th. Skin cold ; heart-beat slower ; patient drowsy ; friction or churning sound at base ; temperature, A. M., 97° ; P. M., 96·25°. A grain of opium every hour appeared to relieve the peculiar agony which he has suffered, but the skin has become cold and clammy ; intellect still clear.

21st. Condition unchanged, except that the surface of the body has become extremely sensitive; patient screams if touched.

22nd. Left side of body somewhat purple, and left foot cold, but acutely sensitive; muttering delirium.

23rd. Foot completely dead, and black as high as two inches above ankle.

24th. Being the fourteenth day of the disease, the pulse suddenly at 2.45 P. M. became normal, dropping at once from above 200 to 75, at which rate it continued, or nearly so, until death, four days later.

The following brief notes complete the case:—

25th. Raved all night; throat sore; tongue dry; petechial eruption on chest and limbs; flushed face, and appearance of emaciation so astonishing in its rapidity as to excite the attention of friends and attendants; pulse and respiration normal; temperature, 95°.

26th. Same condition, but raving frantically; easily rallied, however, when spoken to, and answering questions intelligently; complains of great pain in the back of the head. Paraplegia, with involuntary evacuation of bladder and bowels. Intermittent respiration; intervals of sixty to ninety seconds between breaths; pulse singularly even, strong, and regular. Death on the 27th of the month, and seventeenth of illness.

Autopsy, sixteen hours after death. Present, Drs. Southard, E. A. Osborn, Bleylie, Haight, Burrage, and Holden. Body rigid, of strongly cadaverous odor, and threatening rapid decomposition. The mortified foot somewhat reddened; lungs normal; pericardium somewhat reddened about the efferent vessels; effusion within slight; heart somewhat loaded with fat; apex and base, together with two inches of the aorta, externally injected; right auricle and ventricle slightly dilated; left ventricle normal, save that within it and lying entangled in the chordæ tendineæ was a cyst, the size and shape of a large filbert, entirely detached and empty. The position and character of this were verified by the gentlemen present, before removal.

Upon searching carefully, another was found, but attached to the anterior aspect of the ventricle, just beneath the mitral valves, and bound down by the columnæ carneæ. No further examination was deemed necessary. Microscopical examination, made by Dr. Geo. A. Van Wagenen, of Newark, N. J., may be best reported in his own language:

"I have examined the small cyst from left ventricle of heart. The tissue composing its walls does not resemble that of a fully organized cystic tumour. I could find no epithelial or endothelial layer lining it, and no signs of blood-vessels. It consisted of a mass of small, round, ovate, and caudate granular cells, about the size of, and much like, pus-cells in general appearance. The whole seemed to be held together by a very delicate reticulum of fibrous tissue, which cropped out along the edges of the specimen. In some places organization had gone so far that the tissue was partly striated. The whole appearance resembles that which is found in a fibrinous clot undergoing some organization. I think it comes fairly under what Laennec has described as globular vegetations. There were a few fibres floating free, which I had torn from the edges of the specimen mounted."

The remarks of Rokitansky, already alluded to, so aptly describe this case, that I trust it may be pardonable to quote them; they are as follows:—

"*Globular Vegetations.*—The formations distinguished by this designation are generally round concretions, varying from the size of a pin's head to that of a nut, attached by means of ramifying, cylindrical, or flat appendages or bands, which entwine themselves among the trabeculæ of the heart, and are of a more or less uniformly dirty, grayish-red, or white colour. They are hollow in the interior, but contain, within a wall of irregular thickness, a dirty, grayish-red, or even chocolate-coloured thickish fluid, resembling cream or pus, and which is occasionally of a dirty whitish or yellow colour. One or more of these concretions very frequently burst, when the fluid may be seen effused into the cavity of the heart, and distributed over the recent coagula which have been formed either in the death-struggle or shortly after death, or it is found mixed with the fluid blood contained in the cavity. The band-like appendages which they throw out are

either solid or softened and liquefied in their interior.

"The globular vegetation is originally a solid fibrinous coagulum of irregular form, which varies in colour according to the number of blood-corpuscles it contains, from different shades of red to a reddish-white colour. This coagulum gradually assumes a roundish form, probably in consequence of the outer portion being taken up in the blood in a finely comminuted state. The metamorphosis which it undergoes is very important, and begins as a softening disintegration or solution in the interior of the nucleus, from whence it extends towards the surface. This process is so far developed in the globular vegetations above described, that there only remains a peripheral layer, which incloses the dissolved part as in a capsule. The soft and diffluent mass consists, as has been already remarked, of a pulpy, cream-like fluid, very often resembling pus, and of a chocolate, or dirty brownish-red, reddish-gray, pale-yellow, or whitish colour. A similar metamorphosis affects the ramifying band-like coagula, proceeding from the vegetations when they become hollow. The same process is occasionally discernible in the central layers of those coagula of the first form which have arisen during life. We sometimes observe in these coagula a tendency to decomposition, both by their turbidity and opacity, their dirty-yellow colour, their extreme lacerability, and by the appearance of a turbid cream-like moisture when they are compressed and torn.

"It is a remarkable circumstance that globular vegetations are almost always limited to the left ventricle, where they are attached, in the manner already described, to the apex and the contiguous parts."

Remarks.—The summing up of this typical instance of true globular vegetation in the ventricles, gives us the following symptoms, viz.: Protracted functional derangement of the heart for a year, without murmur or impairment of rhythm or impulse, and attributed to strong tobacco; sudden syncope, and brief loss of sensation and motion; intensely rapid pulsation of the heart, with incapacity to maintain arterial and capillary circulation; cerebral anæmia and insomnia; frequent faintings, first upon slight motion, and later, without; remarkably low temperature; singularly unimpaired respiration-rate; sudden dropping of pulse-rate from above 200 to a normal state, both as to frequency, tension, and rhythm, and its continuance up to the hour of death; intense hyperæsthesia of the surface of the body; embolism of the popliteal artery, with death of the limb; clearness of intellect through all, till almost the last day; and, finally, paraplegia and death.

Whether any more reasonable explanation might be offered in this case than the following, it is impossible to say, but it seems to me that the existence of the cysts following a forgotten endocarditis, would be adequate cause for the functional prodromata; the sudden detachment of one, and the repeated plugging of the aorta at each systole of the heart, would explain the syncope and the excited and intensely rapid beating, while the entanglement of the cyst in the trabeculæ where found, might explain the sudden fall to a normal rate. The protracted disturbance of nutrient supply to the brain, and irritation of the pneumogastrics as well as the central sympathetic ganglia, would in a measure account for the vaso-motor derangement, the cutaneous hyperæsthia, and the low temperature; embolism of the popliteal, and later, of more important arteries, would be a not-unlooked-for complication.—*Amer. Jour. Med. Science.*

Mutual Dissection.—A society has been formed in Paris, having for the object the dissection of deceased members by the survivors. The youngest member will doubtless have excellent facilities for the study of practical anatomy at a nominal price.

Artificial Prolapsus Ani.—In the provinces of the Austrian Empire which contain a large Jewish population, some singular devices are resorted to by recruits in order to incapacitate themselves for military service. Prolapsus ani is said to be frequently produced by the introduction of sponges and their forcible removal. Much difficulty is experienced in curing the disease without the coöperation of the patient.

THE THERAPEUTICS OF EPILEPSY.

BY ALLAN MCLANE HAMILTON, M.D.,

Visiting Physician to Epileptic and Paralytic Hospital, Blackwell's Island, New York City. etc.

(Concluded.)

And now regarding the large doses. If the idea is to thoroughly ruin the patient's health, enfeeble his mind, or perhaps drive him to an asylum, the toxic administration may be indulged in. It is very true that sometimes a rapid restoration may be brought about by "Iron and Quinine;" but there are many cases where the recovery is not quite so complete as one could wish for. Memory is enfeebled, and there is a cachexia which remains for an indefinite time. A darker side of the picture is not always displayed when brilliant results are detailed. This is the list of demented and those that have died. My friend, Dr. Janeway, was present at the autopsies of two patients who died brominized—for certainly the examinations disclosed no other cause for death. I myself have seen several demented cases, and I have no doubt others could tell the same story.

Belladonna and its alkaloids are of great value when the seizures occur in the daytime, or are of the variety known as *petit mal.* I have injected the Sulphate of Atropia in $\frac{1}{64}$ gr. doses beneath the skin at the back of the neck with good effect, and have given it in the manner directed by Trousseau. In either way it should be administered until dryness of the throat is obtained, and should be given a patient trial. The property possessed by belladonna of blunting reflex susceptibility assures it a great advantage over other methods of treatment, when there are centres of irritation such as in gastric epilepsy.

In Ergot we have a remedy which controls the cranial circulation much more readily than any drug I am acquainted with. As the object is to diminish the congestion at the floor of the fourth ventricle, its combination with the bromides greatly increases the action of the latter. Ergotin may be given alone in the form of Bonjean's capsules.

To Tyrrell belongs the credit of suggesting Strychnine. He believes that this remedy controls excitation of the medulla oblongata. In one individual who averaged fifty-one attacks in a month, the number was reduced by the Strychnine to eleven in two years. Handfield Jones does not favour the remedy, nor do others, although it has advocates in this country. In small doses it certainly does good; but I have found that in larger doses than $\frac{1}{32}$ gr., ter in die, it rather aggravates the disease.

Arsenic is excellent, both for its anti-periodic and alterative action, and as an agent to relieve the acne. Clemens, of Frankfort, has lately advocated the Bromide of Arsenic, but in such small doses as to seem useless. He claims for it remarkable virtue when the disease depends upon idiocy, and appears in patients with deformity of the skull. He reports two cures.

Where there is an irregularity of heart action, sluggish circulation, blueness or duskiness of the skin, I think digitalis is indicated; in fact, I generally use it in every chronic case. It is a drug well tolerated by epileptics, who can take it in surprisingly large doses.

An agent has been lately given to the profession which seemed all that was needed at first, but which I am convinced is very much over-estimated, except as an abortant. I speak of the Amyl Nitrite. Drs. Weir Mitchell, Zeigler and Alexander McBride, as well as several foreign writers, have praised it, and several cures have been reported. In epilepsy there seems to be a "habit" (if I may use the expression), or tendency to periodicity. Amyl is well adapted to stop this, as is any other remedy of the same class. Crichton Browne alludes to the effects of this drug upon the *status epilepticus.* His patient had had a great succession of fits, and was at the point of death—the pupils were contracted to an intense degree, pulse 116, temperature 102°, with stertorous breathing. Voluntary movements and yawning were caused by inhalation of the Amyl Nitrite, and the patient subsequently raised his head and looked about him. Dr. Browne relates ten other cases which were seen with Dr. Mierson.

Dr. C. Steketec draws the following conclusion in regard to the action of this drug in Epilepsy:

"It exerts an important influence where the epilepsy is due to, or connected with cerebral anæmia, for the reason that it 'anticipates the attack when there are prodromata—cuts off

the attack when it appears, relieves symptoms due to interrupted innervation after the attack—and the attacks become less frequent'" (? by the author). He also considers it injurious where the attacks are due to cerebral hyperæmia, for the reason that they last longer and become more frequent, and when either maniacal or convulsive, increase in intensity.

My own experience with Amyl Nitrite has clearly settled in my mind the fact that it has great virtues in cutting short or averting attacks, but that it has no permanent influence. Whether we can or cannot make the delicate distinctions of Dr. Stekectec, future clinical experience, I think, must decide. Those who have used it say that it does good in a very limited number of cases; and it is a difficult task to decide which are to be benefitted. I have tried it in every grade of Epilepsy, and find in some of the worst cases, where the fits occur all through the day, with very slight intervals, and even where there is time enough to be prepared, that it is often of no avail. It may be given inclosed in the little glass capsules invented by Dr. McBride, of New York; for hospital use, and for patients who are not intelligent, in alcoholic solution.

I may be pardoned for bringing another remedy to the notice of the profession, and one that has never been used for this purpose. I allude to Tri-Nitro-Glycerine. Its properties are almost enough to intimidate the patient, but it is as powerful a medicinal agent as it is an explosive. The tenth part of a drop touched to the tongue is sufficient in a space of time which is almost inappreciable to produce a rapid cerebral hyperæmia. The face is flushed, the eyes become bright, and the temporal vessels throb, while at the same time there are the marked sensations of fulness. It produces more lasting congestion than does Amyl Nitrite, is much safer, and I have found it to act better as an abortant than the latter. Any good pharmacist can prepare a solution containing one drop to ten of alcohol. This can be further diluted so that ten drops of alcohol shall contain one-tenth of of a drop the Nitro-Glycerine. It may be kept safely in this way, for alcohol prevents its explosion. A dose of a tenth of a drop is sufficient in the majority of cases.

Last of all, it seems almost unnecessary for me to direct attention to that most familiar remedy, Cod Liver Oil, which is so valuable in all nervous diseases.

Anstie treated a number of cases by Cod Liver Oil alone, and cured seven out of twenty patients put upon this plan of treatment alone. Picrotoxin, a remedy recently brought forward, I have tried, and consider valueless.

The question of diet and personal habits are very important ones — particularly as the stomach is so often the seat of irritations which are transmitted to the over-active centres. Beyond the question of over-eating, it has been found that a vegetable diet is better suited to this class of patients. Mierson, in the last volume of the West Riding Reports, publishes cases and makes comparisons between those epileptics placed upon a meat and vegetable diet. The results pointed to the superiority of the latter. As the greater number of epileptics have inordinate appetites, the diet should be strictly regulated.

It is a good plan, I think, to combine the remedies I have alluded to; and in conclusion I take the liberty of presenting a prescription I have used for several years:

℞. Strychniæ Sulph. ..... gr. j.
Fl. Ext. Ergotæ ..... ʒ iss.
Sol. Potass. Arsenit..... ʒ ij.
Sodii Bromidi ..... ʒ iss.
Tr. Digitalis .... ʒ iij.
Aquæ Menth. pip.....ad. ʒ iv.

M. Sig.: A teaspoonful before eating, in a half tumblerful of water.

If the attacks be of the form known as *petit mal*, I think either Ergot or Belladonna are our best agents. With either form of treatment it may be found often necessary to use auxiliary general treatment. The syrup of the combined phosphates, or the syrup of the Lacto-Phosphate of Lime, are good adjuncts; and salt baths, cold head douches, regular food, early hours, and the breaking off of bad habits, will often cure the disease, even when it has lasted for many years.

As a last resort, should continued medication prove useless, the actual cautery or a deep seton at the back of the neck will occasionally arrest these bad cases.—*Chicago Med. Jour. and Examiner.*

INTUSSUSCEPTION; CURE BY INFLATION.

BY STUART ELDRIDGE, M.D.,
Surgeon Yokohama General Hospital.

(Read before the Medical Society of Yokohama, Japan, June 17, 1876.

June 11th, at 6 P. M., I was called to see J. G., aged 17 months, in general remarkably strong and healthy. The child had been ailing for several days, with constipation and slight fever at night, seemed also to have frequent attacks of colic. On the evening of June 10th, the mother administered a dessertspoonful of ol. ricini, which brought away a small amount of consistent feces after intense tenesmus and severe pain. During the night of 10th, and all day of 11th, the child had suffered from very severe attacks of abdominal pain, which it seemed to refer to the region of the transverse colon. Repeated attacks of nausea and vomiting of mucus and biliary matter occurred during 11th, the vomiting taking place irrespective of ingesta. When seen the pulse was 140, wiry and small; temperature, 103·5°; skin hot and dry; tongue thickly coated; abdomen largely swollen, hard, tympanitic, and extremely tender. A lump, apparently of the size of a small egg, could be indistinctly felt about region of right flexure of colon. Paroxysms of intense pain occurred at intervals of about fifteen minutes, during which the child placed its hands upon the upper portion of the abdomen with cries of itai! itai! (pain! pain!). Nausea constant, but ejecta, if any, again swallowed. The mother had an hour previous to my visit administered an ordinary enema without effect. I immediately gave an enema of soap and water, through a catheter inserted five inches in the anus; about half a pint was all that could be given, and this returned immediately, bringing with it about three drachms of consistent feces. Suspecting that the case was one of intussusception, I then thoroughly inflated the bowel by the reversed action of Codman & Shurtleff's aspirator, the air being transmitted through a No. 12 gum catheter inserted ten inches within the anus. The operation of inflation seemed very painful. I inflated until the sense of resistance and swelling of the abdomen became considerable, when, on withdrawing the tube, a rush of air followed, and I was pleased to find that the abdomen was softer, and less swollen than before the operation. The tumour in right upper portion of abdomen was also, I thought, a trifle smaller. I repeated inflation at once, but with no increased effect. Prescribed tr. opii, *m*iij, at intervals of three hours during night, together with a teaspoonful of ext. carnis. The child was more easy during the night of the 11th than it had been during the day; but early on the morning of the 12th, began to have frequent small dejections of pure blood, with once or twice a slight admixture of mucus. At 8 A. M. on the norning of 12th I found the pulse 145; temperature 104°; skin hot and dry; tympanites and tenderness of abdomen even greater than at first visit. Constant nausea, with stercoraceous odour of breath. I at once inflated, compressing the buttocks strongly about the pipe, which was passed twelve inches within the anus. Resistance to inflation was more strongly marked than on the day before, and occurred at an earlier stage of the operation, while in spite of strong compression of external parts about the pipe most of the air injected semed to escape as fast as thrown in. I worked the syringe with great rapidity for about thirty strokes, when the sense of resistance suddenly diminished, and the escape of air by the side of the pipe ceased. I continued inflation until the air began again to escape from the anus, when I withdrew the instrument; an enormous escape of air took place, mixed with intestinal gases, as perceptible by the odour, and on examination of abdomen I found it soft, collapsed, and the induration about right flexure of colon no longer perceptible. Nausea and vomiting immediately ceased, and did not recur. Prescribed: Tr. opii camphoratæ, ʒijss; bismuthi subnit. ʒj; aquæ camphoræ, ʒss; mucilaginis ad ʒij; coch. parv. j altern. hor. Beef extract to be continued, together with an occasional spoonful of iced milk. At 2 P. M. the child had a free, healthy stool, after which no trouble appeared to exist save a slight tenderness over transverse colon, lasting for twenty-four hours, together with some general muscular weakness. The child has continued well in every respect till to-day, June 17th. Believing, as I do, that inflation holds out the

best prospect of cure in cases of intussusception, it seems to me that certain data should be in the possession of the profession in order that its employment may be intelligently regulated. We should know the limit of endurance of pressure from within, belonging to the average healthy intestine at various ages within the usual time of the occurrence of the disease. Possessed of this information the surgeon acting early, before the probable occurrence of softening or gangrene, would be able to push his treatment to the utmost limit of safety, guiding himself by a manometer attached to his injecting apparatus.—*Amer. Jour. Med. Science.*

SUNSTROKE.

Dr. Horatio C. Wood, whose excellent monograph on sunstroke, or thermic fever, published a few years since, must be familiar to a large number of our readers, has an instructive article on the disease in the *Philadelphia Medical Times* for August 5th. We regret that we can not do more than skip lightly through it. Dr. Wood has been in medical charge at the Centennial Exhibition, and also on duty at the city hospitals during the recent unprecedentedly hot weather, and has been able to supplement his experimental knowledge of sunstroke with clinical observations. It may be remembered that the result reached in Dr. Wood's book was that there are two distinct classes of cases, which have been confounded under the name of sunstroke. In the one the patient is collapsed, in the other the bodily temperature is excessive. Two cases—one of each sort—which came under treatment at the Centennial are described. In the former there was a temperature as low as 95¼° Fah., and in the latter it rose to 108° Fah. In the two cases unconsciousness was developed with equal suddenness, and was accompanied by a similar delirium. Dr. Wood thinks it probable that in the collapse there is more than simple syncope; that lowered temperature, like elevated temperature, paralyzes the nervous matter, which has been so constituted as to perform its functions on a certain caloric level.

Dr. Wood thinks that the possibility of children having slight attacks is greatly overlooked, and has little doubt that many of the cases reported as cholera infantum, enteritis, etc., are really instances of thermic fever and are curable by treatment as such. Cases of this character usually owe their cerebral symptoms either to intense exhaustion, to be treated by stimulants, or to intense fever, to be treated by cold baths. Referring to a paper by a colleague on the cold-bath treatment of infantile diarrhœa, Dr. Wood says: "Anyone who has seen, as I have this summer, the child on whom drugs had ceased to act and who was seemingly doomed to die, relieved in twelve hours by enforced cold-bathing every three or four hours, will grant to Dr. Comegys the credit of having introduced one of the most life-saving improvements in infant therapeutics. The sudden sweet sleep, replacing after the bath the fretful nights and days of unrest, is a thing never to be forgotten when once seen, and the arrest of diarrhœa is certainly no less remarkable." As regards the treatment of thermic fever the early use of the ice-water is advocated, the bath being used just long enough to reduce the temperature to 100° Fah. and no longer. After the bath Dr. Wood has found the hypodermic injection of quinine of great service in preventing a rise of temperature. With the subsidence of the first symptoms, headache, slightly increased heat, general distress, and sometimes mental incoherency, supervene. These Dr. Wood believes to be due to a low grade of meningeal or even cerebral inflammation. He has found them yield in some cases very rapidly to free blistering of the back of the neck and head, aided by small repeated doses of mercurials. One great cause of the excessive mortality from sunstroke in hospital practice is recognized in the length of time that elapses between the onset of the disease and the use of the bath. In the Philadelphia hospitals and ambulances measures have been taken to obviate this danger.—*Cincinnati Lancet and Observer.*

Test for Bile.—M. Maréchal's test for bile has lately been recommended by Dr. Smith, jun., of Dublin, who considers it vastly superior to Gmelin's nitric acid test. M. Maréchal uses the tincture of iodine, which produces a beautiful green, passing from rose to yellow. Dr. Smith believes that no other pigment but bile will give this peculiar green colouration.—*London Lancet.*

DIABETES—ITS NERVOUS SYMPTOMS.

BY PROF. BOUCHARDAT.

Prof. Bouchardt (of the *Bul. Gen. de Therapeutique—Chicago Journal of Nervous and Mental Diseases*), gives the following account of the principal disorders of innervation observed during the course of glycosuria :—

1. *Partial Anæsthesia* is more frequent than is perhaps generally supposed; he has observed it in the lower limbs, the thorax and face.

2. *Cramps* are among the most frequent nervous symptoms in severe cases. They occur oftener during the night, and are usually confined to the lower limbs. They disappear generally with improved regimen and exercise.

3. *Insomnia* is caused chiefly by the frequent necessity for micturition and is in great measure relieved when that necessity is removed. Exercise should be insisted on in the treatment of this condition, and an interval of some hours should intervene between supper and bedtime.

4. *Neuralgic Pains* in the region of the kidneys are complained of by many patients; sometimes they are felt in the dorsal region, more rarely in the lower limbs and articulations. Sometimes a feeling of numbness is complained of in the legs, or of chills or burning heat of the extremities.

5. *Weakness of Memory* is very frequent in diabetic patients past the meridian of life. This is not the usual senile weakness, but progresses much more rapidly, the ratio between them being as one to ten, and the faculties usually return with the disappearance of the other troublesome symptoms under treatment. Prognosis should be very cautious on this point.

6. *Inability for Mental Labour* is usually observed in diabetic patients, and improvement in this occurs with improvement in the other symptoms. In many cases a recklessness and want of care is observed to an astonishing extent. An irresistible desire for sleep after meals is often observed.

7. *Irascibility* is frequent, especially in male patients, and it seems to have a tendency to increase the amount of sugar in urine.

8. *Melancholia and Hypochondria* accompany cases of long standing, especially in males. This is due to several causes—idleness induced by the disease, premature impotence of the patient, and the feeling of being afflicted with an incurable disease.—*Detroit Review.*

Volvulus and Ileus—Cured by Effervescing Clysters.—A servant girl, æt. 22, was suddenly seized with an abdominal affection which presented the usual symptoms of internal incarceration, and in the right hypochondrium, a short distance above the crest of the ilium, a movable tumour about 3 inches long, and 1½ inches wide, could be easily detected by palpation. After several unsuccessful attempts had been made to move the bowels with purgative medicines, eight effervescing enemata were administered at short intervals; each consisted of half an ounce of bicarbonate of soda dissolved in a pint of water, followed immediately by three drachms of tartaric acid in an equal quantity of water. It is not stated whether any of the fluid of each injection, or of the gas generated by the soda and tartaric acid, escaped per rectum during the short intervals mentioned, if not the patient's condition must have been somewhat precarious; for after the first clyster, she is said to have felt as if something had burst in the abdomen. The eighth injection was followed by several copious and offensive stools, and the symptoms of incarceration vanished.—(Dr. S. Adler, Med. Chirurg. Centralblatt.—*Canada Med. and Surg. Journal.*

Method of Testing Urine for Albumen.—W. Henry Kesteven, in *The London Lancet*, December, 1876, says: The following will be found to be a handy and exact method for testing urine for albumen. Take a thin glass microscopical cover (about one inch square is the best size); on this place a drop or two of the urine to be tested; then with a pair of ordinary dressing forceps hold the cover over the flame of a candle. At the same time the under surface of the glass will be blackened by the smoke, and the urine will be boiled. If there is any albumen, the black under surface renders the white precipitate evident. Urine may also be tested cold with nitric acid with the same apparatus. A drop or two of the urine should be placed slightly on one side of

the centre of the surface of the glass, and a drop of nitric acid on the other. By inclining the glass, the two will mix, and after the fumes, which result from the mixture have passed away, it will be readily seen if there is any albumen precipitated. In the first experiment care must be taken not to boil the urine too rapidly, or it will be evaporated. In the second, the resulting precipitate is rendered more apparent if the under surface of the glass has been previously coated with Brunswick black or some other dark substance. A few of these covers can be carried in an ordinary pocket dressing-case, and afford a ready means of testing urine at the patient's house. If a method of securing nitric acid in a bottle in such a manner that it could be carried about without leaking could be found, a handy pocket-case, carrying a few of these covers, together with the acid, might be serviceable to those who prefer the cold method of testing for albumen.

A SIMPLE MODE OF FEEDING SOME PATIENTS BY THE NOSE.

BY CLEMENT DUKES, M.B., B.S. LONDON, M.R.C.P. LONDON,

Medical Officer to Rugby School.

I first had to resort to some means for feeding a little child during the time I was resident medical officer at the Hospital for Sick Children, Great Ormond-street, in a case of phagedænic ulceration of the soft palate after scarlatina, under the care of Dr. West, the pain being so acute when any nourishment or medicine was put in the mouth that the child would take nothing; but by the process I am about to describe I was enabled to feed this child regularly, without terrifying or hurting it. Also, for a case of collapse in pneumonia in a child, when the patient was past swallowing naturally, I was able to revive him again for a time, and cause hope that he might have rallied permanently. By its means we obviate the use of *instruments* for feeding by the nose; also the use of injections per rectum in many cases; and in cases of poisoning we can pass what fluids we wish into the stomach when the stomach-pump is not within reach, or is unsuitable, and the patient cannot or will not swallow naturally.

The kind of cases where the process will prove of greatest service are mania, delirium tremens, diphtheria, croup, stomatitis, cancrum oris, etc., and for fasting girls and spoilt children, who, when ill, refuse food.

The *advantages* are—(1) simplicity; (2) freedom from danger, or risk of accident; (3) imitation of the natural process of deglutition.

The *apparatus* is—(1) a yard of india-rubber tubing of one-eighth of an inch bore; (2) a bottle of any kind (an ordinary soda-water bottle does well); (3) a piece of twine to tie the tube in the bottle, so that the end of the tube reaches almost to the bottom of the bottle.

The *nutriment* (or *antidote* if required) should be warmed as a rule, and put in the bottle, about half a pint in quantity, and may be composed of milk, or eggs and milk, beef-tea, stimulants, medicine, etc., as desired.

Its *mode of action* is that of a syphon. 1. The bottle with the fluid in it is held or fastened above the head of the bed; the patient lying on his back without a pillow. 2. The tube is exhausted of air by laying hold of the tube close to the mouth of the bottle with the finger and thumb of the left hand, and running the finger and thumb of the right hand along it, closely compressing it while doing so; the fluid, of course, following the motion of the hand, when the pressure of the left hand is removed. 3. The free end of the tube is then passed *just within* the nostril, and retained there with the left hand, while the right has the tube closed by the pressure of the finger and thumb. 4. By alternate compression and relaxation of the tube an ordinary mouthful of fluid can be allowed to escape at a time, permitting each quantity, if desired, to pass into the stomach before another gulp is liberated.

I have also found this a very convenient apparatus for washing out the nasal cavities, as, for example, in chronic catarrh, fetid secretions, ozœna, syphilitic ulcers, certain cases of diphtheria, epistaxis, and when foreign bodies have been retained in the nostril. The tube is inserted in one nostril, as above, and held by the patient; the head is now inclined *forwards* over a basin; the fluid, which may be either water, carbolic water, black wash, or solution of per-

chloride of iron, etc., enters the one nostril and passes by the posterior nares into the other nostril in a continuous gentle stream, without any of it falling into the pharynx, provided the head be inclined well forwards; the nostrils are thus well washed out, or, in the case of epistaxis, an astringent being used, are plugged.—*Lancet.*

FAT MEAT AS AN EXTERNAL APPLICATION.

In the *Virginia Medical Monthly*, Dr. W. T. Ennet, of North Carolina, relates the following experience in diphtheria:—"My aunt, who was in Hartford two years ago, when the disease was raging so terrifically there, being at my house this summer, when it was killing whole families in Wilmington, and was also terribly fatal to the surrounding country, asked me to try the Hartford doctors' treatment, which was the same as ours, with the exception of external application of 'fat meat.' I could not, and cannot, see the virtue, but promised to try it; I used it, and my patient got well. I still did not look upon it as affecting the disease at all. I used it again and again, and the patients all got well. I tried to study out some physiological action, but could not. I wrote to an eminent physician in Hartford, and he writes me, 'We regard it as an old woman's remedy; but the doctors all use it, and since its use the mortality has not been more than one-third. What it is and why it is, I don't know; but might it not have some antidotal action on the poison?' Since then, I was called in consultation in the adjoining neighbourhood, where the attending physician had lost three or four in the one family, and another patient was almost dead. I was almost ashamed to recommend my fat meat, but I did it, and the child got well. Of course, we used all other necessary treatment. I certainly did not rely upon it alone; but, as it cannot possibly do any harm, I shall continue to use it as an external application."

Professor J. Lewis Smith, of New York, considers fat salt pork to the throat very valuable in anginose scarlatina. He finds it a safe and efficient counter-irritant, so decided in action that some skins cannot support it but for a short time.—*Med. and Surg. Reporter.*

TREATMENT OF ACUTE DYSENTERY BY INJECTIONS OF HOT WATER.

BY JOHN J. REID, M.D.

The plan of treating cases of acute dysentery by means of injections of water having a temperature of from 100° to 110° was suggested to the writer by the method pursued at the Woman's Hospital in the cure of cases of disease of the pelvic viscera.

The results obtained in dysentery have been such as to indicate its use in a large number of cases, if not in all, inasmuch as it does not interfere with any appropriate medication by the stomach.

It is inferred that the effects of hot water on the diseased mucous membrane of the rectum and colon are similar to what they are in the vagina, viz., blanching and contraction of the mucous membrane, with consequent diminution of the calibre of the canal.

Before having recourse to the above method cold water enemata were used, and with considerable benefit. Following this, tepid water was employed, and, apparently, with more advantage. As may be supposed, however, neither of these agents produced the same direct action as water of a temperature varying from 100° to 110°.

The method of administration is quite simple and does not require the services of a skilled, nurse, or extensive apparatus.

The hips of the patient are slightly raised, by means of a pillow, and a basin of water of the requisite temperature is placed in the bed so as to allow the nates to rest on the edge of the vessel. The vaginal nozzle of a Davidson's syringe is then introduced into the rectum, and alongside of it the rectal or smaller nozzle. A current of water is then kept up for ten minutes, the water passing through the vaginal nozzle into the rectum, and returning by a steady stream through the smaller one into the basin, without causing any inconvenience to the patient. If the disease is extensive, and the colon involved for a considerable distance, a long rectal pipe may be employed instead of the vaginal nozzle.

The immediate effect on the patient is one of comfort, which lasts for about an hour.

The injections are to be continued every two hours, till the active stage of the disease is past. —*New York Med. Journal.*

SULPHIDE OF CARBON FOR CANCER OF THE STOMACH.

Anything which promises to palliate the sufferings produced by cancer of the stomach is likely to have a fair trial, inasmuch as most men in general practice are too often foiled in their endeavours to relieve patients labouring under this disease. There are times when all the well-known anodynes fail, and still the sufferer is desirous of trying something else, and the practitioner seems to have exhausted the materia medica. We have little doubt, therefore, that the suggestion of Dr. J. T. Whittaker to try bisulphide of carbon will be adopted by many; and we may, therefore, hope to hear some reports of its effects. Two cases have been reported by Dr. Whittaker to the Cincinnati Academy, in both of which this drug gave great relief. According to the account given in the *Clinic*, it is not vaunted as a specific, but is recommended strongly for the relief of the distressing stomach symptoms. In one of the cases the patient had been kept alive by six grains of morphia daily, one grain and a-half being the smallest dose that would give temporary relief. Dr. Whittaker then gave her two drops of the bisulphide in a teaspoonful of alcohol three times a day, increasing the dose to four drops dissolved in oil of almonds. Complete relief of the vomiting was obtained, and a great change in the progress of the case occurred. The morphia was reduced to one grain a day, sleep was obtained, appetite returned, and then the patient gained sufficient strength to go out and visit a friend. Another case was very similar, and Dr. Whittaker, though he does not for a moment consider his patients cured, holds that the disease is held in check by the bisulphide of carbon. Its well-known anæsthetic properties offer an additional encouragement to those who may feel inclined to try it. But we need not speculate on its mode of action until further evidence shall have been obtained, though we may say that its great solvent powers first induced Dr. Whittaker to give it, he being impressed with the idea that this would prevent the proliferation which is so distinct an element in the progress of cancer.—*Examiner.*

BROMIDE OF ARSENIC IN THE TREATMENT OF EPILEPSY.

Dr. Th. Clemens, of Frankfort-on-the-Main, has employed bromide of arsenic for twenty years in the treatment of diseases of the nervous system, and especially of epilepsy, and claims that he has obtained astonishing results with it. He uses the liquor of bromide of arsenic, and gives one or two drops in a glass of water once, or, if necessary, twice daily. These minute doses may be given for months, and even years, without producing the usual unpleasant effects of a long continued arsenical course. All his cases of epilepsy have been markedly relieved and improved by this remedy, but in only two cases has it produced a complete cure. In many cases of incurable epilepsy, complicated with idiocy and deformities of the skull, the fits were reduced in number from twenty in the twenty-four hours to four, or even two—a result that has been obtained by no other treatment. In connection with the bromide of arsenic, an almost exclusively meat diet is advised. The patients should be as much as possible in the open air in the daytime, and their windows should be kept open at night. Unlike bromide of potassium, this remedy does not require to be given in increasing doses, and instead of interfering with digestion, improves the nutrition and strength. Dr. Clemens has employed the following formula since 1859, and thinks that it ought to replace Fowler's solution, which is irrational in its composition and uncertain in its action. This solution becomes stronger with time, the chemical union of the bromide with the arseniate of potash becoming more and more perfect.

LIQUOR ARSENICI BROMIDI.

Arsenious acid, powdered	1 drachm.
Carbonate of potassa	1 "
Bromine	2 drachms.
Water, enough to complete	...20 ounces.

Boil the acid and carbonate together until the dissolution is effected, add enough water to complete the quantity, and the bromine when the mixture has become cold.—*Cincinnati Lancet and Observer.*

General Paralysis of the Insane—Causes.—Dr. Ashe (*Journal of Mental Science*, —*London Medical Record*, advances two original

ideas on the causation of general paralysis. Briefly stated, these are a general paralysis caused by the use of *beer* and by an *excess of phosphorus* in the system.

General paralysis scarcely exists in Ireland, but is common in England and Scotland. The English and Scotch greatly exceed the Irish in their consumption of malt liquors, and a highly phosphorised diet. Dr. Ashe is not able to find any other element of causation in which these countries differ.

ANEURISM OF THE ARCH OF THE AORTA THAT SIMULATED A PLEURITIS SINISTRA.

Marc F——, a drayman, thirty-eight years of age, of a robust constitution, was suddenly seized with a violent stitch in the side and intense dyspnœa, while walking alongside his cart on July 31st. He fell in the street and had to be carried to his home. Fifteen days later he was removed to the hospital De la Croix-Rousse, in Lyons, where he was placed under the care of M. Soulier. At that time the stitch had disappeared, but the oppression persisted; respiratory movements, 40; pulse, 104; slight cough. A physical examination revealed flatness, loss of vocal fremitus, and loss of the vesicular respiratory murmur over the whole of the left lung. A slight, soft murmur was heard posteriorly over the situation of the left bronchus. The voice-sounds were the same over both lungs, but the whisper-resonance was exaggerated on the left side. Mensuration showed that the left side of the thorax was not enlarged. A diagnosis of pleurisy was made. On September 2nd the patient had a severe attack of hæmoptysis. On September 9th he had another attack of hæmoptysis, in which large clots of blood were coughed up, and which proved fatal in a few minutes.

At the autopsy a small sacculated aneurism, as large as a nut, was found on the under surface of the arch of the aorta. The aneurism was filled with a firm clot, and it compressed and obliterated the left bronchus. The clot and the thin aneurysmal sac presented fissures which opened into the left bronchus, and through which the terrific hæmorrhage took place. There was complete splenization of the left lung. The right lung and both pleuræ were perfectly normal. The case is of interest on account of the difficulty of the diagnosis.—*Le Lyon Médical*, November, 1876.

Causes and Treatment of Insomnia.

Passing in review the different causes of insomnia, Dr. Fothergill deduces from them the following therapeutic indications, which we find laid down in the *Lond. Medical*:—1st. Opium is indicated when the cause of insomnia is pain; and if there exists vascular excitement, it may be combined with arterial sedatives, as aconite and antimony. 2nd. Hyoscyaminus is especially useful in cases of insomnia from renal disease. 3rd. Hydrate of chloral is comparatively useful in insomnia due to pain; but it is the hypnotic *par excellence* when insomnia is coupled with sanguineous pressure (plethora), in fevers, and especially with children, when one unites with it bromide of potassium. It is hurtful in insomnia caused by sadness and cerebral exhaustion, as in melancholia, etc. 4th. Bromide of potassium has a marked sedative action, whether on the cerebral cells or on the vessels of the encephalon, and finds its special indication in cases in which insomnia is combined with peripheral irritation, especially in the pelvic organs; and it may be combined, according to the case, with chloral or opium. 5th. Alcohol is incontestably a powerful hypnotic in all cases where insomnia depends on sadness or pre-occupation (gloomy meditation). The change of gay ideas for sad ones clearly shows its indication. 6th. Some persons accustomed to open-air exercise are subject to insomnia when deprived of it. It may then depend on one of two causes: Either on strong tension in certain motor centres in the cerebral convolutions, or on diminution in the blood of the products of muscular oxidization, which, according to the experiments of Prever, would be directly hypnotic. 7th. When there is not perfect equilibrium between the different nerve centres, or there remains still to be exhausted a certain quantity of mental activity, one can induce sleep by tiring out the mind, by the repetition of figures or other like exercises.

Surgery.

ON THE USE OF THE ATOMIZER IN DISEASES OF THE EYE.

BY M. LANDESBERG, M.D., PHILADELPHIA.

The method of applying to the eye, in certain diseases, medical agents in the form of a fine spray, has scarcely found entrance into ophthalmic practice. It is true that at different times several German and French physicians have made use of the atomizer in certain affections of the conjunctiva and cornea, and, acording to their statements, with the best success. But until now this process has met with but little approval among oculists, either from cautious reserve or indifference on the part of practitioners.

Dr. A. Schenkl (at the instigation of Prof. v. Hanser, whose assistant he then was) made a number of experiments on the method of using the atomizer in the different external diseases of the eye, and published his results in the year 1871 in the *Prager Vierteljahrsschrift.*

The high praise which Schenkl bestows upon the use of the atomizer caused me to make some experiments, so as to form an idea of the value of this method from my own observation. My experiments extended over a period of five years, and their results (which I here communicate preliminarily) are based upon a long line of observations.

Dr. Schenkl has successfully applied the atomizer in the following diseases of the eye, viz. :—

1. In simple conjunctival catarrh without complications.
2. In chronic blennorrhœa.
3. In pannus.
4. In opacities of the cornea from different causes.

The substances employed were sulphate of copper, laudanum, tannin, cuprum aluminatum.

My experiments were based upon two questions, viz. :—

1. Is the atomizer at all admissible in ophthalmic practice, and, if so, in what diseases of the eye?

2. What advantages has the new process over the usual method of treatment?

The results are as follows, viz. :—

The use of the atomizer in ophthalmic practice must be regarded as a real advance in the treatment of diseases of the eye. This method offers several advantages which cannot be as safely attained by any other process. But it is not to be applied in all diseases of the eye in which it is recommended by Schenkl.

Absolutely injurious is its use in all inflammatory conditions of the mucous membrane of the eye, either in the form of conjunctival or granular catarrh, with or without complication of the cornea.

With respect to the genuine diseases of the cornea, the application of the atomizer must be emphatically condemned in all superficial diseases of the same during their development. But as soon as the inflammatory appearances have subsided, we have in the atomizer a valuable means to bring the disease to a rapid end and to facilitate the absorption of the opacities of the cornea.

In all recent opacities of the cornea, especially after burns and sloughing, there is no other means so well calculated to restore the transparency of the cornea as the use of the atomizer.

In the treatment of diffuse keratitis the atomizer has proved preferable to all other methods.

The period of the treatment was in my cases reduced to almost one-half the usual time, and the results were such as could not possibly be achieved by any other method. The earlier it is applied in diffuse keratitis, the more favourable will be the result. Even the presence of iritis does not contraindicate its use.

With it we achieve what we could not attain until now by any other treatment. We break the force of inflammation, further reparation, and accomplish an almost complete transparency of the cornea.

Whether in old opacities of the cornea the atomizer can be applied with any hope of success remains as yet an open question. The extremely favourable result in one case in which I tried it certainly encourages further experiments.

The substances experimented with are the following:

Cupri sulphas, with and without laudanum.

Simple laudanum, extract. opii.

Cuprum aluminatum.

Sodii chloratum.

Sodii carbonas and bicarbonas.

The best results were attained with extractum opii.

The apparatus used was Siegel's atomizer.

The length of time of each application varied from three to six minutes for each eye, according to the degree of irritation.

The reaction is considerable at first, but disappears very soon.

Bad effects I have never observed.—*Phil. Med. Times.*

ROYAL LONDON OPHTHALMIC HOSPITAL.

APPARENT FAILURE OF HEART'S ACTION DURING INHALATION OF ETHER.

For the following notes and remarks we are indebted to Mr. Morton, M.B., senior house-surgeon. As the question "Ether or chloroform?" is still *sub judice*, the record of the subjoined case may prove interesting.

George S——, shipwright, aged forty-four, a strong, healthy-looking man, came to this hospital on the 25th ult. with his left eye lost by an injury sustained some time since. He consented to have the eye-ball removed, for which purpose anhydrous ether, as prepared by Messrs. Robbins and Co. for general anæsthesia, was administered by Mr. Morton after the method always employed at this hospital—namely, a conical sponge hollowed in the middle, and lined with flannel. There was not nearly so much struggling as there is frequently, though there was some unwillingness to respire freely, and a tendency to dropping of the lower jaw, with falling back of the tongue; but by forcibly holding forwards the lower jaw by means of his beard the patient was fully anæsthetised in about seven minutes after inhaling about five ounces of ether. All went well to the completion of the excision, when, having removed the inhaler, though still holding forward the man's lower jaw, Mr. Morton was proceeding to compress the bleeding tissues when he observed that there was no hæmorrhage. The man's lips were then noticed to be very pale, as was also his whole face, and his respirations had ceased. Artificial respiration was at once commenced, and one of the assistants who was raising and lowering the arms felt that the pulse was extremely feeble. The tongue was also forcibly drawn forwards, as it had fallen far back in the mouth, although the lower jaw was being held forwards. After the artificial respiration had been continued some eight or ten times the patient made one or two feeble efforts to breathe, and the conjunctivæ were becoming sensitive, when one of the clinical assistants suggested the use of nitrite of amyl, four minims of which were accordingly given on a piece of lint, and the artificial respiration continued, but the patient soon began to breathe for himself, and speedily recovered consciousness, walking out of the theatre a few minutes afterwards.

This case seems to have been one of cardiac failure, as indicated by the pallor of the face and lips and the feebleness of the pulse, though it may be thought by some to have been due to an obstruction to the respiration from his tongue having fallen back. This is scarcely likely, for he had breathed to within very few seconds of the time that the absence of respiration and the extreme pallor were noticed. Further, Mr. Morton remarks that in all cases, now more than 500, in which he has administered ether, if there has been any obstruction to the respiration it has always been accompanied by intense congestion of the face and blueness of the lips; yet in some cases where vomiting is about to occur this is preceded by pallor and profuse sweating, but that does not apply to the present case, for there was no vomiting nor any tendency to it. It would be interesting to know whether others have seen cases in which there has been cardiac failure during the inhalation of ether, and it is important to note the fact that holding forwards the lower jaw did not prevent the tongue falling back, as it is commonly alleged to do. In conclusion, it may be stated that the patient has a slight mitral regurgitant murmur, and occasionally suffers from difficulty in breathing after a hard day's work.—*London Lancet.*

ON SUPPURATION OF THE ANTRUM.

BY CHRISTOPHER HEATH, F.R.C.S.,

Although suppuration of the antrum is a well-recognized surgical affection in its severer forms, it appears to me that cases of purulent collections in the antrum are often overlooked, and the symptoms attributed to other causes. When one considers how closely the molar teeth (and even the front teeth in some cases) trench upon the mucous cavity of the superior maxilla, and how anxious both patient and dentist are to preserve a tooth by careful stopping, destruction of the nerve, drilling of the pulp cavity, &c., it is not surprising that mischief should occasionally be propagated from the tooth to the thin plate of bone covering it, and thence to the lining membrane of the antrum. A dull pain, somewhat resembling that of a cold in the head, is often all that is felt at first, but occasionally, as in a gentleman recently under my care, the pain is most acute, and of a sharp, stabbing, neuralgic character. An offensive odour is now sometimes perceptible to the patient, but not to those around him—thus differing markedly from ozæna—and a sudden discharge of matter from the nostril when blowing the nose may relieve all the symptoms for the moment. The more common course of events is, I think, that without any acute pain the patient notices that he has a purulent discharge from the nose upon blowing it, and perhaps is aware that when lying down the discharge finds its way into the throat. This latter point is often overlooked, however, though there may be a complaint of a very disagreeable taste in the mouth, and a tendency to nausea in the morning.

With all this there is no distension of the antrum, and it is this fact that frequently misleads the practitioner. It is certain, however, that in health there is invariably an opening between the antrum and the nostril, and that even when this is closed the wall is very thin and readily absorbed, and it is quite exceptional, therefore, when the antrum is so distended with pus as to give rise to any prominence of the cheek. Undoubtedly cases of this kind have been recorded, but it may be doubted whether some of them were not examples of cyst, the contents of which had become purulent, for we know that cysts in the wall of the antrum readily produce great deformity. The natural opening into the nose is not at the level of the bottom of the cavity of the antrum, and hence there is always a small residuum of discharge, which the patient can only partially get rid of by holding the head on one side.

Given, a patient who complains of purulent discharge from the nostril, with occasionally a disagreeable smell, and the case is too apt to be put down as one of ozæna, and treated by nasal douches, snuffs, &c. But, as already mentioned, the offensive smell is perceived only by the patient, and not by his friends, the reverse being the case in ozæna; and, again, the discharge is only occasional, is determined by the position of the head, and is simply purulent, whereas, in ozæna the discharge is constant, and mixed with offensive crusts from the nasal cavities. Again, the dull ache, varied occasionally by acute pain, is apt to be referred to the teeth alone, and the most careful examination may fail to detect any special tenderness in any one tooth. Hence, after exhausting the usual routine remedies for neuralgia, I have known wholesale extraction of useful teeth undertaken with no benefit, unless it should fortunately happen that the tooth which has perforated the antrum should be extracted early, when the discharge of pus at once clears up the nature of the case.

The most serious consequence, however, of an unrecognized empyema of the antrum is, I believe, the damage done to the digestive organs by the constant swallowing of purulent fluid during sleep. Under these circumstances, the patient is always ailing, is unable to take food in the morning, and may be reduced to a state of great prostration even dangerous to life. The usual remedies for indigestion are likely to be of little service so long as the purulent drain continues.

The treatment by perforating the antrum from the mouth, and washing out the cavity into the nose, is perfectly well recognized, and I have nothing to add to it, except to urge that it should be undertaken more readily than it often is. The aperture made in the bone, whether above the alveolus or through the

socket of a tooth, is only too apt to close, and there need, therefore, be no fear of causing permanent damage to the jaw by even an unnecessary puncture. I prefer a trochar and canula for the operation, but it may be equally well done with a strong pair of sharp-pointed scissors, as recommended by Brodie, or with an ordinary carpenter's gimlet, as proposed by Fergusson. For washing out the cavity I have found nothing so convenient as a Eustachian catheter, to which an india-rubber bottle can be readily adapted.—*Examiner.*

HERPES ZOSTER—ITS PATHOLOGY AND TREATMENT.

BY DR. L. D. BULKLEY.

Dr. L. D. Bulkley (in the *American Journal of Medical Sciences*, July, 1876) summarises our knowledge of herpes zoster as follows:—

1. Whatever may be the cause of the nerve irritation, herpes zoster is alwaye of nerve origin; that is, it is an inflammatory lesion of the skin, wherein the local cell action resulting in the production of vesicles is but the result of nerve influence, a perverted cell action caused by perverted innervation.

2. From the almost constant changes found in the ganglia developed on the posterior or sensitive roots of the spinal nerves of the affected regions we must infer that the trophic changes observed in the skin have to do with the sensitive nerves.

3. We are not to conclude, however, tnat zoster is the result of inflammation, of the sensitive ganglion alone, for the entire nerve on the distal side of the ganglion has been always found to be inflamed, and abundant proof exists of eruptions of zoster due to various nerve lesions, peripheral and central, injuries and disease of the transmitting nerves and of the cord and encephalon.

4. In certain cases the origin may be shown to be idiopathic inflamation of conducting nerves; or they may be affected by pressure or other alterations caused by the presence of a tumor; or the disease may be the result of surgical or other injury.

5. The origin, therefore, of herpes zoster is a direct nerve irritation and inflammation, and in ordinary apparently idiopathic cases the explanation of this is to be sought for in the same causes as give rise to neuralgias in general, some of which are traceable, many are not. The gouty habit inducing neuralgia can likewise give occasion to herpes, the direct exposure to cold of the terminal branches of a nerve, as in the head and neck, or elsewhere, can cause painful excitation of the nerve itself, or neuralgia, and is equally a cause of zoster.

6. The eruption of zoster is an epiphenomenon to primary neuritis and neuralgia.

7. The clinical history and therapeutics of herpes zoster are in themselves almost convincing proofs of the neurotic nature of the disease. In most cases, especially in younger patients, the treatment is purely expectant, while in severe cases and in elderly persons the neuralgia is the principal element requiring attention, and this is remedied by measures directed to the nervous system. In the majority of instances the nerve irritation, or inflammation, subsides spontaneously, the whole train of morbid phenomena occupying about the same length of time taken by other self-limited inflammations, while under circumstances the *sequelæ* require attention, as in other diseases. The local destruction of tissue is sometimes a troublesome feature in the way of ulceration or necrosis of the skin, or the neuralgia persists to a distressing degree, even under the most intelligent treatment.

8. Three therapeutic agents seem to have marked control over herpes zoster. First, phosphorus, which used in the form of phosphide of zinc, one-third of a grain with one-third of a grain of extract nux vomica, given every three hours, will pretty certainly *abort* the disease if given early. Second, electricity, the galvanic current passed directly through the effected nerves, their trunks and peripheral branches will have the effect of causing the affection to abort if used early, or check the pain and dry up the vesicles sooner than otherwise. Third, quinia with iron, will, if pushed early, shorten the duration of the disease, and relieve many unpleasant symptoms. The hypodermic injection of morphia relieves the pain, and if used early and repeatedly might abort the disease by checking the nerve irritation. Ordinarily, the only local treatment required is of the inflamed surface—best accomplished by powdering it with starch, and keeping a single thickness of muslin firmly applied and left on until the vesicles are dry.—*Detroit Review.*

A SUCCESSFUL GASTROTOMY FOR STRICTURE OF THE ŒSOPHAGUS.

The operation of making an artificial opening into the stomach in the case of stricture of the œsophagus has recently been performed with the best results by M. Verneuil, of Paris, who brought the details of his case before the meeting of the Academy of Medicine on the 24th of October. He remarked that since its introduction by M. Sédillot this operation had been performed in different countries in all sixteen times, but never with success until on the present occasion.

The case is one of great interest, and we cull the following details from the report of the proceedings of the meeting in question in *La France Médicale* for the 28th ult. : The majority of attempts to form a permanent gastric fistula have been made on the subjects of cancerous stricture of the œsophagus and in patients already weakened by hæmorrhage and cachexia. M. Verneuil's patient was a healthy lad seventeen years of age, who on February 5th of the present year accidentally swallowed a solution of caustic potash. Intense pain in the throat and exfoliation of the mucous membrane of pharynx and œsophagus followed, and on the subsidence of these immediate effects of the caustic, the patient experienced great difficulty in swallowing. The dysphagia increased until, on March 31st, he came under the care of M. Dumontpallier, at La Pitié Hospital. Attempts at catheterism of the gullet were frequently made without success, the seat of obstruction being apparently in the thoracic portion of the tube. On the 24th of May the patient was transferred to M. Verneuil's care. He was then much emaciated, his face was pale and worn, and his temperature and pulse were below the normal. He was unable to swallow anything, all food being returned as soon as taken. Catheterism showed the existence of a very tight stricture, about seven inches from the upper extremity of the gullet, so low as to preclude the idea of œsophagotomy. After repeated failures to introduce instruments *per vias naturales*, when the patient was under the influence of chloral, M. Verneuil at length decided to perform gastrotomy, after consultation with M. Léon Labbé. Full antiseptic precautions were taken during the operation, of which the following are the details :—Chloroform being administered, an incision was made in the abdominal wall parallel to the margin of the ribs on the left side, about two inches in length. The skin, subcutaneous tissue, and obliquui muscles were then divided, and the peritoneum being exposed was raised by forceps and laid open with the scissors. The stomach was recognised by its white colour, and, being seized with forceps, was drawn into the mouth of the wound, and its wall brought into apposition with the latter by acupuncture needles. The portion of stomach exposed was then carefully stitched to the lips of the wound in the peritoneum and the abdominal wall ; and the viscus was then laid open. Its wall was of considerable thickness. A vulcanised sound was introduced into the organ for the distance of about three inches. There was considerable hæmorrhage from the incision in the stomach, which was arrested by means of forceps ; and, collodion being applied over the whole surface of the abdomen, the patient was removed to bed. He made a good recovery, and almost at once was able to take liquid food through the artificial opening. At the time of the operation the weight of the patient was under 33 kilogrs. (about 72 lb.) ; a month later it was 34 kilogrs. (75 lb.) ; and about three months after the operation it was 42 kilogrs. (92 lb.) He enjoys a good appetite, which he is able fully to satisfy. M. Verneuil acknowledged that the successful issue was in great part due to the care bestowed on the case by the dressers and nurses. He added that it remained to be seen how the patient will endure the novel mode of alimentation, which he will be compelled to follow for the whole of his life ; for, unlike Alexis St. Martin, who took his food by the mouth, this patient has a stricture of the œsophagus which is probably impervious. The communication was listened to with great interest, and, at the request of many of his colleagues, M. Verneuil promised to bring the patient to the next meeting of the Academy (last Tuesday), and to give him a meal before the eyes of the members.—*London Lancet.*

ROYAL COLLEGE OF SURGEONS.

A greatly improved plan of conducting this examination was introduced on the present occasion by the Court of Examiners, and contrasts very favourably with the former method. By the present plan no candidate is examined a second time by the same examiner,—he appears before each as a fresh candidate at the different tables; and this is so fully carried out that not even the papers at the written examinations are read by the same examiner.

The following full account of the improved mode of conducting this examination will be read with interest by intending candidates, as well as by our readers generally. And here may be again noticed that visitors properly qualified are at once readily admitted on sending in their card to the chairman of the Court, Mr. John Birkett, the senior Vice-President of the College; there were several such on the present occasion. We are now speaking only of the final or pass examination, which was commenced on Friday, the 23rd ult., in the theatre of the College, when the following questions on Surgery and Pathology—all of which were required to be answered between 1.30 and 5 p.m.—were submitted to the fifteen candidates, viz. :—1. Describe from the commencement, and in its several stages, the anatomical characters of the affection commonly known as disease of the hip-joint in childhood; and discuss the pathological changes that occur. 2. Mention the principal cases in which the condition known as hæmophilia becomes of surgical interest. Discuss the pathology of that affection; and describe the treatment, local and general, which you would adopt in particular instances. 3. Discuss fully the question, In what cases is it justifiable to perform the operation of castration? Describe the operation, its accidents and complications. 4. Describe the various forms of internal acute intestinal obstruction; and the surgical treatment that you would adopt in each case.

The answers to these were then distributed amongst the members of the Court, none of whom read those of pupils from their respective hospitals; and this was the case throughout the long examination. On the 24th ult. the candidates assembled again in the theatre, where eighteen patients (selected from a large number sent from the various metropolitan hospitals) were placed separately in compartments with the candidate, who was provided with materials for writing, describing and diagnosing each particular case, half an hour being allowed, at the end of which the candidate was conducted to another patient, similarly placed, with the same time allowed. The written papers were then submitted to the Court for consideration. The following were the cases sent from St. Bartholomew's, St. Thomas's, Guy's, St. George's, University College, and St. Mary's Hospitals, viz :—Syphilitic eruption (lupus), hernia and varicocele, double hydrocele, fluid tumour of the leg, chronic abscess of the thigh, encysted hydrocele, syphilitic disease of bones of the foot, epithelioma of the palate, tumour of the tibia, ulcer of the tongue, papilloma of the tongue, enlarged testis and hydrocele, syphilitic eruption and periostitis, disease of knee and fracture, node on the arm, syphilitic testis, and hernia. After which each candidate was examined orally by two members of the Court on four patients, none of whom he had previously seen.

On Saturday, the last day of this ordeal, the members of the Court and the candidates again assembled in the theatre for examination in Practical Surgery. Two subjects were provided, on which each candidate was required to perform two operations. These consisted principally of amputations, tying arteries, trephining, etc. This over, the candidates proceeded, four in number, to as many tables in the library and council-room, which were covered with a selection of good practical cases from the museum. Here they had each fifteen minutes' oral examination at three tables, and this completed the examination.—*Medical Times and Gazette.*

THE TREATMENT OF PSORIASIS.—One use appears at last to have been found for phosphorus, which, if confirmed by further experience, will make it a most useful medicine. Dr. Broadbent mentioned at the Clinical Society a case of psoriasis, in which, after other remedies had failed, he gave phosphorus, and in a week the disease, obstinate before, was cured. As Sir W. Jenner pithily observed, cases of psoriasis are plenttfnl, and phosphorus capsules to be had in abundance, and there should be no difficulty in inquiring into the action and use of phosphorus in this obstinate and ofttimes extremely troublesome disease.—*London Lancet.*

HÔPITAL ST. LOUIS, PARIS.

PECULIAR FORM OF LUXATION OF THE EXTERNAL EXTREMITY OF THE CLAVICLE.

(Service of M. Pean, under the care of M. Nicaise.)

The luxation of the clavicle directly backwards over the acromion is a form which is rarely seen. In neither "Malgaigne" nor the "Dictionnaire Encyclopédique des Sciences Médicales" is any mention made of it.

Michael H——, aged eighty-one, shoemaker, native of Antwerp, came to the hospital, complaining of inability to use his right arm. On the 7th September, while crossing the street, his foot slipped as he was getting on to the pavement, and he fell on to the back part of his shoulder.

At first sight the case appeared to be one of luxation of the head of the humerus forwards, several of the symptoms of that form of displacement being present. But upon closer examination it was easy to determine that the head of the humerus had not left its cavity, and that there was in reality a luxation of the clavicle, and not of the humerus.

The symptoms were briefly as follows:—In front the internal extremity of the clavicle was prominent, the inferior and superior clavicular fossæ were effaced, and the distance between the middle line and the shoulder was diminished. At the shoulder the head of the humerus was found to be in its normal position. The articular surface of the acromion was found to be situated in front of the clavicle. Behind the acromion the external extremity of the clavicle could be readily distinguished. The articular surface of the latter was situated outside the acromion, and its anterior border corresponded with the posterior border of the acromial process. The head was slightly flexed, and turned towards the right. The elbow was separated from the body by a distance of ten centimetres. The spinal border of the scapula was prominent, and its inferior angle was pushed towards the spinal column. The movements of the arm were very limited, and caused much pain.

The patient was put under the influence of chloroform with the view of reducing the luxation, but this was found to be impossible; accordingly his arm was fixed in a sling.

M. Nicaise, who was doing duty at that time for M. Péan, proceeded to make some experiments upon the dead body, in order to determine the mode of production of this form of luxation. With the section of the acromio-clavicular ligament it was impossible to produce the luxation. The trapezoid ligament was then cut, and it was then found easy to produce the desired displacement. The conoid ligament was left intact. From these experiments it may be inferred that the rupture of the trapezoid ligament is necessary for the production of this form of luxation.—*London Lancet.*

POISONING BY TINCT. GELSEMINUM.

TREATMENT BY HYPODERMIC INJECTION OF MORPHIA.

Dr. G. S. Courtright, of Lithopolis, Ohio, read a paper before the Hockling Valley Medical Association, at Bremen, Ohio, on a case of poisoning by gelseminum. We give briefly, from the report in the Cincinnati *Lancet and Observer*, for November, the symptoms presented and the treatment adopted.

The patient, a medical man, had gone into a drug store to get some whiskey and tincture of cinchona as a tonic. Two bottles were handed to him, and it being a little dark he poured out at least one or two teaspoonfuls of what he supposed was tinct. cinchona. He noticed some difficulty in his sight while walking home. When at breakfast, could not pour out the coffee from the cup; his chin dropped down, and he could not eat, and with difficulty walked into the next room to lie down. Could not see distinctly on account of difficulty in opening the eyes; did not see double. Intellect unimpaired, but slightly confused. A sense of suffocation.

When first seen by Dr. Courtright the respirations were slow, pulse 98 to 100, very weak, face congested, lips livid, mouth partially open, lower jaw hanging; could move his tongue slightly, but unable to articulate distinctly; interior of mouth and fauces moist; pupils largely dilated and insensible to light; the

eyes had a fixed stare; the sclerotic was congested; lids drooping; intellect seemed clear. The head had to be kept thrown well up and back to allow air to enter the lungs. There was some delirium or aberration of mind for 24 hours, with pulse 90. Respiration regular, and 18 per minute; temp., 101, which was followed by an expectoration of thick yellow pus for six or seven days. He had never previously suffered from bronchitis. Ipecacuanha and mustard were given in as large quantities as could be swallowed, but no emesis followed. Frictions, with heat and sinapisms to the extremities, and over the stomach, were also used. Half to three-quarters of a grain of morphia sulph. was injected hypodermically, and repeated in three minutes, when, within three minutes, the breathing improved. In four minutes from the last injection it was repeated. In two and a-half to three minutes he partially raised his arm, and, with an effort, and by an assistant holding up the lower jaw, he said, "*Be spry.*" The pupils were now slightly contracted, the eyes began to lose their fixed stare, and the eyebrows could be slightly moved. In four minutes the injection was repeated (same dose), and half a grain given internally. During all this time, and for thirty minutes afterwards, the head had to be kept well up and back to allow air to enter the lungs.

Soon after vomiting took place. In six minutes the injection of morphia was repeated, and this time he complained that it hurt. Up to this time there had been complete insensibility to pain in both arms. The pulse became stronger and less frequent. No farther medication was used, except one dose of morphia internally one hour after. The paralysis gave way gradually, and two hours after he was able to give an account of the accident. It was at least two hours from the time the poison was taken until the commencement of the use of the morphia hypodermically.

On going to the drug store it was found that the bottle containing tinct. cinchona, and that containing tinct. gelseminum were standing side by side, close together, and that containing belladonna was on another shelf, some six feet away. The doctor at first thought that he had taken belladonna.

PRURITUS FROM AN UNUSUAL CAUSE (TROMBIDIUM).

BY TILBURY FOX, M.D., F.R.C.P.,

Physician to the Department for Skin Diseases, University College Hospital, &c.

At the end of July, 1876, a gentlemen resident in the Eastern Counties noticed on the eyelid of his infant a small red speck, which, on examination with a hand microscope, proved to be a living parasite, partially imbedded in the skin. Several days subsequently his wife was greatly annoyed by pruritus, and her neck and chest were found studded here and there with these little red specks, which at first sight were thought to be "petechiæ," but turned out to be insects. They could be readily extracted with a pin. In the attempt to discover the source whence the parasites came, a pet pug dog was examined, and then collections of these parasites on the nose and between the eyes—where, in fact, the hair was least thick—were discovered. During the month of August the little red visitors caused excessive annoyance to the servants and every one in the house, defying all remedial measures, though some members of the household were very much less affected than others. Remove them as you would, the next day a fresh supply appeared, and the insects were found on the arms of the infant as well as the face, on the back, neck, and chest, and even the nipples of the adults. A favourite long-haired French cat was examined, because one of the family, after nursing the cat, was greatly annoyed, and the ears were found infested. The hair fell off, leaving bald patches where the parasites were congregated on the dog and the cat.

In the middle of August the animals were shut up, isolated, and regularly dressed with equal parts of sulphurous acid and glycerine, and the plague began to diminish at once. The members of the household had tried citrine ointment, compound sulphur ointment, detergent solution of tar, &c.; but still the nuisance continued in some degree, and a second cat was found affected. But when all the animals were shut out of the house the mischief did not cease. There was some doubt and difference of opinion with regard to the exact species of the parasite. A specimen was submitted to my

friend Dr. Cobbold, and he pronounced it to be trombidium, or garden mite, which lives on plants. It is closely related to the true mites, the itch insect, the little red "spider" of hot-houses, and the well-known Leptus autumnalis or "harvest-bug." The annoying pruritus about the legs produced by the latter at the end of the summer, after a walk in the fields, &c., is well known to every one; and Dr. Heiberg has lately recorded that the nuisance assumed an epidemic form in a village in Denmark. In the present case the pruritus was chiefly around the neck and shoulders, and several parasites were removed from the eyelids. The plants in the garden were not examined to see if plant mites were very abundant there, as this exact source was not suspected at the time. There can be very little doubt, I think, that the original source must have been certain plants in the garden; that the house pets, who were, undoubtedly, first affected, were agents in the conveyance of the main portion of the parasites to the human members of the family, but not exclusively, the probability being that many of the people, especially after the pet cats and dog were excluded from the house, managed to be infected directly from the original source.—*Examiner.*

THE DELIRIUM OF OPERATORS.

Under this sensational title, Dr. Gueniot, of Paris, undertakes to describe a delirium which may seize a surgeon during an operation, consisting in a more or less temporary mental aberration, during which he may inflict injuries on his patient, always of a serious character, and usually fatal. The young surgeon is especially predisposed to this terrible attack, affected, as he may be, by the sight of blood, anxious with regard to the opinions of others, and menaced alike in his interests and self-esteem. This delirium is much oftener observed during obstetrical operations than in those of ordinary surgery. They, in fact, are often undertaken by practitioners only imperfectly acquainted with the proper manœuvres, while the execution of these in the depths of the organs concerned conceals the extent and importance of the lesions produced. Numerous cases were cited, which either have been published by authors, or have fallen under Prof. Gueniot's personal obstrvation, in which fearful and fatal lesions have been produced, when neither the circumstances of the case, nor the ignorance of the operator afforded any explanation—nay, in more than one of these, he was a person of expertness.—*Med. and Surg. Rep.*

Midwifery.

ABDOMINAL AND CÆSAREAN SECTION.

We have not often had more pleasure, as medical journalists, than we have had recently in giving insertion to the two brilliantly successful cases, respectively by Mr. Thomas R. Jessop, of Leeds, and by Dr. James Edmunds, of London. The cases were alike in one particular—viz., their successful ending, both as regards the mother and the child. In nearly all other respects the cases were different, and, in consequence, the method of proceeding. Mr. Jessop's case, by far the rarer, indeed, almost unique, was one of extra-uterine gestation, the child being lodged in the midst of the bowels, the placenta covering the outside of the fundus of the uterus and the inlet of the pelvis like the lid of a pot. The uterus was, of course, not opened; its cavity measured only two and a-half inches. The placenta was not removed. Great pains were taken to leave it untouched, and to leave an opening in the lower part of the abdominal wound for the escape of placental débris and other discharges. Dr. Edmunds' case was one in which the Cæsarean section was necessitated by the existence of a large tumour filling the pelvic brim and cavity. The patient had been in labour sixty hours, for twenty of these in hard expulsive labour without any progress. It is no part of our intention here to repeat the particulars of the cases. The description of the cases by the operators will remain part of the classics of obstetric achievement, to be studied *verbatim* by those practitioners who may find themselves confronted with similar cases in the future. Dr. Edmunds' procedure is, perhaps, most remarkable for the care taken to avoid septic taint of all kinds, the fact that he did not apply any sutures to the uterine wound, and for the perfect simplicity of the after-treatment. The operation was performed in the Temperance Hospital, alcoholic beverages being rigidly excluded, as in a former case by Dr. Edmunds, recorded in *The Lancet* for Jan. 5th, 1861. At the end of the long operation the pulse and respiration were normal. She slept tranquilly the first night after. The pulse and temperature never varied from what was perfectly normal, and on the twenty-third day after the operation the mother and child left the hospital well. Such records raise the fame of obstetric surgery. —*London Lancet.*

Otology.

REPORT ON OTOLOGY.

BY A. M. WHITEHEAD, M. D., SPRINGFIELD, OHIO.

(Read before the Clark Co. Medical Society Sept. 14th, 1876.)

In presenting to this society a Report on Otology I need hardly say that the great frequency and importance of diseases of the ear merit more consideration and study than is accorded them by the general profession. When the best authorities are led by their experience to assert that there are more ear cases than eye cases, and that not more than one in every three persons between the ages of twenty and forty years possess strictly normal hearing in both ears; and when we consider that a very common disease of this organ, in regard to which the laity have been taught erroneous doctrines —I mean chronic suppuration of the middle ear, which may involve not only the hearing power but the life of the patient; we must feel that it is evident, that we are dealing with a subject on which every practitioner of medicine is or should be very much interested. The time of the society will not admit of me dwelling upon or giving in detail the advancements which have been made in this department of our profession during the past few years; it may be sufficient to say they have been most gratifying. The gradual diminution of cases which are classed as nervous deafness, the rare occurrence of cases in which the primary lesions are of nervous origin, is the surest evidence we have of the progress which has been made in the diagnosis and treatment of diseases of the ear.

Having presented to the society a paper upon this subject some time ago, and mentioned in a general way the means of diagnosis and manner of examining the ear, I will confine this report chiefly to a few cases which have been under my own treatment during the past few years.

Case 1. C. S., aged 16, applied for treatment; constitution scrofulous. His hearing had been impaired about three years in both ears. A watch could be heard about three inches from the auricles. Examination showed catarrh of the fauces with enlarged tonsils. The drum-heads were sunken, and congested; inflation of the middle ear by means of the catheter was followed by immediate improvement in the hearing. The air douche was used once a day for about three weeks, with an injection every third day of a solution of sulph. of zinc, grs. ii to ʒi of water. The tonsils were scarified and the tincture of iodine applied. This treatment, with the use of a gargle of chlorate of potash morning and evening, and anti-scrofulous constitutional treatment, restored the hearing perfectly. I may mention that there was hereditary tendency in this case, as several of the family for three generations were afflicted with deafness.

Case 2. E. G. C., aged about 45, applied for treatment, and stated that his hearing had been impaired several years. He also complained of tinnitus aurium and a sense of fulness in the ears. Examination showed an abnormal dryness of the auditory canal, with a thickened and sunken condition of the membrana tympani. A watch could be heard when placed upon the auricles. The use of the Eustachian catheter with Politzer's method of inflating the ear, resulted in a marked improvement in the hearing, without any change in the tinnitus or the secretion of cerumen. The treatment was continued by applying steam to the middle ear by means of the catheter. The use of this treatment for about ten days was followed by further improvement in the hearing and complete relief from tinnitus aurium. The secretion of cerumen was also increased to as much as would be expected in a normal condition of the parts. The result of the treatment of this case with a number of other similar cases which have come under my charge during the past year, has led me to regard steam applied to the cavity of the tympanum as a valuable remedy, not only for catarrh and impaired hearing, but for diminished secretion of the external auditory canal. I also think it confirms to some extent the prevalent idea that affections of the middle ear are connected with the diminution of the secretion of cerumen, that there is a physiological unity of the parts, and that they stand in dependence one upon the other.

Case 3. Miss S., aged 15, applied for treatment, and stated that her hearing had been impaired about two years, and that she had been under the treatment of a homœpathic physician in this city all summer, but there had been no

improvement in her hearing. The treatment he had used was Politzer's method of inflating the ear. Examination showed a congested condition of the membrana tympani. There was also naso-pharyngeal catarrh. A watch could be heard about four inches from the right ear, and about six inches from the left ear. The air douche by means of the catheter once a day for four weeks and an injection of a solution of common salt, of the naso-pharyngeal cavity, by means of the naso-pharyngeal syringe, with a gargle of a solution of chlorate of potash, morning and evening, resulted in complete relief from deafness and catarrh. I would state that although Politzer's method of inflating the ear is sometimes sufficient in recent cases, and in children, it can never take the place of inflation by means of the catheter, for the reason that the air is only forced into the drums. There is no counter current, as in catheterization, by which any accumulations that may have formed in the cavity of the tympanum may be removed. The force by means of the catheter is also greater and much more effective.

Case 4. H. H. P., aged 28, scrofulous constitution, applied for treatment, and stated that his hearing had been impaired several years and was gradually growing worse. He also complained of tinnitus aurium and a feeling of fulness in the ears. Examination showed an abnormal dryness of the auditory canal, with ulceration and partial opacity of the drum-head of the right side. On the left side the drum-head was sunken and congested. A watch could be heard when placed upon the auricles. Under treatment by inflation with the catheter and the application of the vapour of warm water to the middle ear, with a solution of compound nitrate of silver grains xx to ʒi of water dropped into the ear morning and evening, and the iodide of potassium as constitutional treatment, the ulcers were healed and his hearing became perfect.

Case 5. Was a man aged about 40, who stated that he had not heard in the left ear for twenty years, and that recently the hearing of the right ear had become so much impaired as to seriously interfere with his vocation, which was that of a mechanic. A watch could be heard about one inch from the auricles. Examination showed acute inflammation of the drum-head of the right side. On the left side the drum-head was sunken, and less translucent than normal. The use of the Eustachian catheter was followed by a marked improvement in the hearing of both ears, and the patient expressed himself as satisfied if he received no further benefit. After one week's treatment a watch could be heard about two feet from the auricle, when the treatment was stopped, in consequence of the patient leaving this city. In this connection, I would state that in long standing cases, where there is a marked improvement at once, after the use of the catheter, the difficulty is in the Eustachian tube. Sometimes the mouth of the tube is only closed by a plug of mucous.

Case 6. Mr. S., aged 21, applied for treatment, and stated that his hearing had been impaired about ten years, and was gradually growing worse. Examination showed catarrh of the fauces, with the tonsil of the right side somewhat enlarged, which had been amputated before he came under my observation. The drum-heads were sunken and partially thickened. A watch was heard about two inches from the ear of the left side; on the right side it was heard only when placed upon the auricle. This patient was under treatment eight weeks, and was completely relieved. The vapour of warm water was applied to the middle ear, alternated every third day with an injection of a solution of chlorate of potash.

The potash I have never seen recommended by any of the authorities as an application to the middle ear, but used it upon general principles, as I have applied it in cases of ophthalmia with very prompt effect.

Case 7. E. T., aged 17, has had a discharge from the ear, with great impairment of hearing, since an attack of scarlatina in infancy. Hearing distance by the watch: right ear, two inches; left ear, one inch. Inflation, by means of the catheter, made a marked improvement in the hearing of the right ear, which only lasted a few hours. The cause of this, I suppose, was a change in the position of the ossicula; as the same effect followed the application of an artificial membrana tympani. After removing it the patient would hear well for a few hours,

until the bones become displaced again. This patient was treated with an injection of a solution of sulph. of zinc through the catheter, and thorough cleansing of the auditory canal, and a solution of the compound nitrate of silver dropped into the ear morning and evening. After one month's treatment an artificial membrana tympani was applied, which enabled him to hear ordinary conversation without difficulty. The treatment was then discontinued, in consequence of the patient leaving this city. I did not undertake to treat the perforations in the drum-heads, though since then I have noticed in Prof. Roosa's late work on the Diseases of the Ear, which is probably the best in the English language, a report of several cases of perforation of the membrana tympani of long standing, the result of scarlet fever, healed, and the hearing greatly improved by a long continued course of treatment, lasting from one to two years.

I have now under treatment a young lady, aged 16, whose hearing has been impaired since suffering from measles when eight years of age. Examination showed a perforation of the drum-head of the right side, with a suppurative inflammation. On the left side the drum-head was sunken and congested. Hearing distance by the watch on the left side was about five inches; on the right side the watch was not heard at all. This patient has been under treatment about two months, and the hearing of the left side has become normal. On the right side the inflammation is cured, and the watch can be heard when placed upon the auricle.

In making this report I have not attempted to enter into details. These cases are cited to show what can be done sometimes to relieve cases which seem to be the most unpromising, and in connection with the last two, of suppurated inflammation of the middle ear, I have a few practical remarks to offer upon otorrhœa, or a chronic discharge from the auditory canal. There is probably no disease which is oftener neglected, or more lightly regarded by physicians and the laity, than a running from the ear. It is generally supposed that the discharge is caused by inflammation of the external auditory canal; such, however, is not the fact. The reports upon this subject, by physicians of the most extensive experience, show that a very large majority of the cases commence in an inflammation of the middle ear, which results in ulceration and perforation of the membrana tympani. I will not stop to say anything about polypi, exostosis, or disease of the mastoid process, which we must regard as complications, symptoms, or effects of a purulent inflammation of the middle ear. Now, when we consider the anatomical relations of the seat of this disease, its close proximity to the brain, the jugular vein, carotid artery, and other important parts, it is not difficult to perceive the danger of neglecting its treatment. The best authorities upon this subject have asserted that people die every year from a chronic inflammation of the middle ear, without the attending physician suspecting the real cause of death, that an extension of the inflammation to the brain is not an uncommon occurrence.

In the treatment of otorrhœa cleanliness is of the first importance, for, unless the parts are free from pus, medication will be entirely useless. The ear should be cleansed before each treatment, and this is most completely done by inflation with Politzer's method or the catheter, so as to drive the pus from the middle ear into the meatus, which may then be removed by injections of warm water with a hard rubber ear syringe. After the parts are thoroughly cleansed, any of the astringents may be used. A solution of compound nitrate of silver, twenty grains to an ounce of water, dropped into the ear morning and evening and forced through the drum into the Eustachian tube and the throat, by pressing upon the tragus as the patient swallows a few times, is often sufficient of itself, if continued a few weeks. Solutions dropped into the ear and allowed to run out without reaching the seat of the disease, without passing into the cavity of the tympanum, will do no good whatever. A solution of nitrate of silver, ten to sixty grains to ounce, sulph. of copper, five to twenty grains, sulph. of zinc, two to four grains, may be used instead of the compound nitrate of silver, or alternated morning and evening as the case may require, and this treatment if persevered with I believe will cure most any case of suppurative inflammations of the middle ear, unless there are complications, such as polypi disease of the bones, or a constitutional cachexia, which may require appropriate treatment.—*Cincinnati Lancet and Observer.*

Materia Medica.

FERRUGINOUS PREPARATIONS IN SPECIFIC AFFECTIONS.

BY JOHN C. LUCAS,
Surgeon H. M.'s Indian Army.

All the preparations of iron, and more especially the perchloride and the pernitrate, will prove of considerable avail as a therapeutic, antiseptic, and preventive agent in all specific and zymotic maladies — viz., enteric fever, cholera, septicæmia, erysipelas, adynamic, puerperal fever, &c. We know that the hæmatinic virtue of this drug is largely needed in the cure, as well as in the prevention, of all these affections. In Asiatic cholera it is especially indicated when we come to consider the changes which the blood undergoes, and the morbid state of the vascular system, from the heart down to the minutest capillaries; the latter, particularly of the intestines and stomach, according to some modern pathologists, are said to be thrown into spasm, thus encouraging the liquid transudation, and for which antispasmodics are recommended. In cholera and typhoid, by its astringent and styptic action on the coats of the bloodvessels, it ought to prevent the transudation of liquids from the blood. By this means, in cholera it would tend to check the purging and vomiting unless the theory of salutary action be believed and acted upon, in which case this effect would be undesirable.

In the latter stages of typhoid fever it would arrest and prevent the diarrhœa, and likewise exert its topical action on the ulcerative process, prevent hæmorrhage, and favour the granulations of the intestinal ulcer.

In puerperal fever I can state from experience the beneficial effect of the drug in this disease, noticing the state of the blood in the gravid condition, the loss of the vital fluid during the process of parturition, and perhaps prior and subsequent to it as well, which is not an unfrequent predisposing cause of this sequel. I need hardly state that the hæmatinic and astringent actions of the drug are manifest. Its usefulness in erysipelas and septicæmia or pyæmia is well known to hospital surgeons.

The evacuations (intestinal) of patients taking iron are deodorised and blackened by the action of the acids of the fæces on the drug; in cholera, where the alimentary discharges are impregnated with the specific virus, by effecting chemical anti-bacteric changes in the dejecta passed by cholera patients, it deprives the low organisms of their vitality and specific virulence. And if this be the case the discharges, both of the stomach and intestines, would be rendered inert before they were voided. Professor Pettenkofer, of Munich, disinfects the dejecta of cholera and typhoid patients with the sulphate of iron, but after they are passed; how much better, as a sanitary measure, it would be if we could accomplish the disinfection before the dejections are voided.

With regard to the antiseptic action, the same remarks may be applied to typhoid fever.

Concerning erysipelas, septicæmia, and puerperal septicæmia, or fever, it may be said that, as affections the result of blood poisoning, the remedy will, through the circulatory system, have its topical effect, and consequently, by whatever modes the affections are propagated, it would diminish the risk of contagion or infection.

Mode of administration.—It ought to be commenced with from the onset in large and repeated doses, from a drachm to two, of the tincture or liquor of the perchloride, or the liquor of the pernitrate, freely diluted in about three or four ounces of iced water. The remedy may as well be administered per rectum, especially in cholera and typhoid. In addition to being administered in cases of actual cholera and typhoid, I think it would prove of no inconsiderable avail if we could enforce its use in cases of premonitory diarrhœa of the former, or even give it, but in small quantities, to apparently healthy individuals when the diseases are prevailing in epidemic form, or when there is reason to expect an outburst of either. This latter is specially applicable with regard to our troops, who have sanitary as well as medical supervision. Each man in a regiment may be allowed the required quantity of iron to mix with his drinking-water, or what is still better and more certain, this may be done for him, so that what water he drinks will be sure to contain iron. The taste may, no doubt, be object-

ed to; but, by explaining to the men what it is intended for, this little objection would be overcome without much difficulty; and even taking it for granted the iron did not answer these purposes, to say the least, it would have its tonic action, and thus strengthen the system against the diseases. It would, as well, free the water of its animal and vegetable impurities.

When erysipleas or septicæmia is raging in a hospital, the patients effected, as well as those not effected, but exposed to the poison, may be similarly treated.

In the same manner, when puerperal fever is prevailing in a lying-in institution, &c., the patients affected, as well as all recently confined cases, might be similarly dealt with. It would not be unadvisable to administer the drug in the latter months of utero-gestation.—*London Lancet.*

ON AN AUSCULTATORY SOUND.

BY RALPH W. LEFTWICH, M. D.,

Resident Medical Officer, East London Children's Hospital.

The application of mediate auscultation to the detection of stone, though not new, has hitherto, I believe, been confined to the somewhat awkward expedient of placing a stethoscope upon the hypogastrium while the sound is rotated in the bladder. The "auscultatory sound," here described, is in many respects an improvement upon this. It consists essentially of an india-rubber tube, one end of which is provided with an ear-piece and the other stretched over the handle of a sound. The tube should be about twenty-five inches in length, and of a quarter of an inch bore. It must be composed of extremely soft and moderately thick india-rubber. The sound itself should be of solid steel; and, although the ordinary form answers very well, it is a decided advantage to have the extremity of the handle cylindrical or conical, so as to preserve the lumen of the tube. The ear-piece, made of vulcanite, is similar to that of a Gruber's otoscope or a Stern's stethoscope; it is intended to be inserted into the meatus, and maintains its position there best if bent to an obtuse angle.

Thus constructed the instrument will be found to conduct sonorous vibrations with remarkable intensity and delicacy—indeed, the lightest rub on a polished surface can be heard with ease. In using it, it is necessary that the ear-piece be inserted into the meatus with sufficient firmness to retain its position there without being held. The sound should be held lightly between the finger and thumb and manipulated in the usual way; the grating noise, however, is so distinct that the tapping movement occupies a secondary place, and is of most use in refining the diagnosis and in distinguishing between a calculus and a deposit on the walls of the bladder. The value of the instrument in the simple detection of calculus is tolerably evident, but there can be little doubt that, with practice, its sphere of usefulness will be much extended.

Messrs. Arnold, of West Smithfield, have undertaken to keep a supply of them in various sizes.—*London Lancet.*

COTO BARK AND COTOIN.

The extraordinary powers ascribed to this comparatively new remedy, in arresting and curing intestinal catarrh, dysentery, and diarrhœa, in their various modifications, appear to have received renewed confirmation through the experiments made with it by Drs. Burkart and Rieker in the Ludwig's Hospital at Stuttgart. The remedy was employed by them in the shape of powder, as tincture, and in the form of the active principle, cotoin. The powdered bark, when placed on the tongue, has a sharp aromatic taste, which soon increases in intensity, and becomes very disagreeable. It increases the flow of saliva, and its effect is felt for some time after it has been removed from the mouth. Doses of 0·5 gm., given internally, generally produce a burning sensation in the stomach, and very generally eructations and vomiting, making this form of exhibition undesirable. Nevertheless, in one case, where the patient retained a single dose of 0·6 gm. (9·2 grains), all gastric catarrh disappeared in two days. The effects of the tincture (1:9) are even more disagreeable than those of the powdered bark itself; it is very difficult to make patients take the remedy after they have once experienced its unpleasant effects. These latter, however, are mainly caused by constituents of a resinous character, as well as by an

essential oil, in which the peculiar specific action of the remedy is not believed to reside. The employment of the active principle, cotoin, therefore removes all obstacles which might otherwise cause the rejection of the remedy. In the first place, only very small doses are necessary to produce the desired effect, and besides no secondary disturbances of any kind, nor any disagreeable sensations are produced by it. According to the investigations of Jobst, cotoin must be classed with the so-called indifferent principles; and it is not only "indifferent" chemically, but even physiologically; for on administering it to animals, not the slightest change of any physiological functions could be observed, even in doses of one gramme. This absence of toxic effects is no doubt a great advantage, in comparison with those remedies upon which we mostly rely in such diseases, namely, opium and lead. Although cotoin may seem to be much more expensive than any other antidiarrhœic remedy, it is not so in reality, for only very small and infrequent doses of it need be employed. Eleven cases of gastric catarrh and diarrhœa have been treated with the remedy, of which 0·05-0·08 gm. were dissolved in 120 gm. of distilled water, to which ten drops of alcohol were added, and the solution mixed with thirty gm. of syrup. A tablespoonful was administered hourly. Some of the cases were of old standing, some were very severe attacks of cholera morbus, and a number of them had either been but little benefitted by opium, tannin, or lead acetate, or not been bettered at all. The above mixture produced speedy improvement, generally in a few hours, and complete recovery in from 12 hours to 6 days.—*Buchn. Repert. f. Ph.* 1876, 520.—*(New Remedies.)*

Calabar Bean as a Lactagogue *(The British Medical Journal*, October 18, 1876).—Dr. W. Munro, remembering the power of calabar bean to dilate the peripheral blood-vessels, and wishing to restore the secretion of milk after it had disappeared from the breast for about three days, thought this dilating power might be made useful. He accordingly prepared an ointment of the strength of twenty grains to the ounce, and ordered it to be applied, and washed off carefully before the baby was allowed to suckle. After two applications, *the baby not having been put to the breast meanwhile*, the milk returned in full flow.—*Philadelphia Med. Times.*

THE CANADIAN
Journal of Medical Science,
A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

To Correspondents.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor.*

TORONTO, FEBRUARY, 1877.

MEDICAL SCHOOL MORTALITY.

The possession of a graduating power is commonly regarded as the *sine qua non* for a a successful Medical School, and yet, strange as it may appear, the only Medical School in Ontario, to-day, with an unbroken record of a quarter of a century, is one that has never directly possessed such a power.

There have been, within our recollection, no less than four Medical Schools in this Province, organised as integral parts of as many Universities, each having the power of conferring degrees upon its own students, viz.:—The Medical Departments of King's College, Trinity College, Victoria College, and Queen's College; and yet, one after another, they have all succumbed to some occult or malevolent influence, while the School without a direct University connection still survives its thirty-fourth year, alike honoured and successful.

Why this strange fatality should follow the University Medical Schools we do not *now* pretend to explain, but simply draw attention to it, as an unexpected and, perhaps, anomalous circumstance. It is true, the Medical Department of Trinity College, after a lapse of several years, was some time ago resuscitated, when it was thought the new faculty had consigned to the grave of its predecessor all cause of former mischief, and marked out for itself a long and prosperous career; but the old fatality follows the connection still, and we see the new School taking steps to sever its connection with the parent University again, by asking for a separate Act of Incorporation, under the name

of the "Trinity Medical School," with the ostensible view of affiliating, like the Toronto School of Medicine, with the University of Toronto.

What the immediate causes are which have led to this step, it is not our province to enquire, and if the new School wishes simply to transfer its undivided allegiance to the University of Toronto, like the Toronto School of Medicine, we presume no one will interfere to prevent; but, if the object be to secure by Act of Parliament the privilege of sending up its students to compete for scholarships and medals at *both* Universities, and thus over-ride the statutes and conditions that may be established by the Senate and Convocation, we think the proposal should meet with the strenuous opposition of the Government and all friends of the Toronto University. It is impossible to serve two masters, and it will be found equally so for an affiliated School to be true to two Universities.

There is a great difference between sending up a large class to compete for prizes and scholarships, and sending up a large class for the degree; the former has been done before, *the latter may be done by-and-bye.*

With reference to the other three University Medical Schools, no magic wand has yet been able to "awake them to glory again," but from the ruins of the Queen's College Medical Faculty the Royal College of Surgeons, of Kingston, arose (Phœnix like) as an independent School, free from those elements of discord which had proved fatal to its predecessor, and bids fair for a long and prosperous career.

Whether there is something in the mental constitution of Ontario incompatible with the healthy working of a Medical School in close connection with a University, or whether all former Schools have been established on an unsound basis, we hardly dare say; but there is something decidedly invigorating in the atmosphere of an independent School—something better calculated to draw out a man's energies, and to develop his latent talent, than is to be found in a School in which, however diligently men may work, they must ever feel they occupy a subordinate position, and where they are liable at any moment to be over-ruled in any efforts they may propose for the advancement of the institution.

A good deal, however, depends upon the character of the elements out of which a medical faculty is constructed, as to whether it will have a long and harmonious existence or a short and ignominious career. Each one should feel that the success of the School depends upon his individual exertions, and no labour in connection with his school work should be irksome. Each man's habits should be such as to ensure his capacity for the performance of his duties at all times; and all should be willing to "bear and forbear" with regard to little peculiarities of temper and manner in their colleagues. A feeling of mutual respect and confidence should pervade the whole staff, and an intelligent industry should prompt every man to keep himself thoroughly abreast of the times in his own special department, at least.

NOTICE TO SUBSCRIBERS.

☞ Mr. W. Smith, of London, Ont., is our authorized collector and canvasser for this Province. We have no doubt that this arrangement will be convenient to many, who too often, through press of business or mere neglect, omit to forward their annual subscription. It will be impossible for the collector to visit everyone throughout Ontario. We trust that no one will wait for a call from him, but that many will at once send us the amount due. Our thanks are given to those who have promptly paid up.

PERSONAL.—We hear that Dr. Hillary, of Uxbridge, is about to leave for Jamaica, there to take up his residence.

All physicians in Texas, under the new law, are required to appear before the county board of examiners, appointed by the District Court, and stand an examination in chemistry, anatomy, physiology, and materia medica, before they can have legal assistance in collecting their bills.

BOOK NOTICES.

"*The Blood and Breath.*" A system of exercise for the Lungs and Limbs. By J. S. FROBISHER. New York; Goodyear's Rubber Curler Co., 697 Broadway.

"*Principles of Human Physiology.*" By WILLIAM B. CARPENTER, M.D., F.R.S., etc. Edited by Henry Power, M.B., London, F.R.C.S. A new American, from the 8th English edition, with notes and additions. By Francis G. Smith. M. D., Philadelphia: Henry C. Lea, 1876. Toronto: Hart and Rawlinson.

An American edition, by F. G. SMITH, M.D., of Philadelphia, of Dr. Carpenter's celebrated treatise on the "*Principles of Human Physiology*" is, by the politeness of the American publisher, H. C. Lea, before us.

The work is from the eighth English edition, edited by H. Power, M.B., and contains notes and additions by the American editor.

It would be impossible for us to speak in terms too exalted of a work which has received, with each succeeding edition, the highest encomiums of the Medical profession.

This, the eighth edition, is an advance upon the previous one, and embodies the principal results of Physiological study which have been achieved up to the present time.

To the Lecturer upon the Institutes of Medicine, Dr. Carpenter's great work, both on account of the elegance of its diction and the clearness of its description, together with the beauty and perfect accuracy of the illustrations, must prove of inestimable value.

The American edition offers, at a much less price to the Canadian student, all the advantages of the English edition.

We feel confident that those of our professional brethren who are anxious to possess a clear account of the great progress which has been made up to the present time, in all the various departments of Physiological study, will, upon careful perusal of the present work, agree with us in pronouncing it to be the most complete extant in the English language upon the subject of Human Physiology.

Communications.

MONTREAL, Jan. 10th, 1877.

To the Editor of the CANADIAN JOURNAL OF MEDICAL SCIENCE.

DEAR SIR,—Will you please inform me, through the columns of your estimable journal, whether a medical man, who, though a graduate of a recognized Canadian University, is not a member of the Ontario College of Physicians and Surgeons, can legally hold, or be appointed (in Ontario) to, such positions as Coroner for county or city, or paid surgeon, resident or otherwise, to hospitals or other institutions receiving government aid, and whether the possession of English licences, as M.R.C.S. or L.R.C.P., without membership of the Ontario College, qualifies him for the positions above mentioned.

As I have not a copy of the Ontario Medical Act and its amendments, information on the subject would confer a favour on a constant reader.

Yours, very truly,
A. MEDICO.

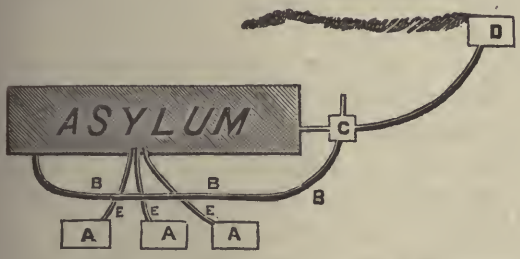
Section 37 of the Medical Act reads: "No person shall be appointed as medical officer, physician or surgeon in any branch of the public service of the Province of Ontario, or in any hospital or other charitable institution not supported wholly by voluntary contributions, unless he is registered under the provisions of this Act." Only those in practice before 1850, or duly qualified before July 23rd, 1870, can register without passing the examination before the board of examiners.—ED.

JOURNALISTIC.—We hear that the *Detroit Review of Medicine* and *The Peninsular Journal of Medicine*, published in Detroit, are about to amalgamate. Among the new journals for 1877 are announced the *Toledo Medical and Surgical Journal*, published in Toledo. *A Monthly Digest of Current Literature in Medicine, Surgery, and Obstetrics*, published in Mount Vernon, Indiana. *The Quarterly Journal of Inebriety*, published at Binghampton, N. Y., under the auspices of the American Association for the cure of Inebriates. We have received the first number of the latter and like its appearance and contents. We wish it a success equal to the importance of the subject.

TYPHOID FEVER IN THE HAMILTON ASYLUM.

HAMILTON, Jan. 18th, 1877.

MY DEAR DOCTOR,—In answer to your postal card, I beg to inform you that, on the first of this month, we had down, or ailing, with typhoid fever the following number of employees :—*Attendants*, four ill, one ailing; *Housemaids*, two ill, two ailing; *Laundress*, one ill. At the same time, the engineer, farmer, and carpenter were ill at their own homes, below the Mountain. On the 10th of this month, seven sick employees were sent to the City Hospital. These latter have nearly all recovered, and will return here in a few days. The carpenter is again at work in the building, and the engineer and farmer will be back before long. All the cases have been of a very mild form.



A.—Water tanks, built of stone, in the rock, on the south side of the Asylum.

B.—Tile drain running along the south side of the building, and only five feet distant from the water tanks (*A*).

C.—A square chamber (four feet), into which several pipes run before going on to the cesspool (*D*) on the brow of the hill.

D.—Large cesspool, on the brow of the mountain, which collects the solids, and allows the liquid portion of the drainage to pass down the hill.

E.—Three pipes (of three-inch calibre) leading from the water tanks to the pump in the basement.

The water tanks are built of porous rock, and have been leaking for some time past.

When the sewer was exposed it was found that two of the tile pipes, which were laid over the iron pipes *(E E)*, were broken, and admitted of the free escape of liquid sewage, and one joint between two of the tiles leaked profusely. The ground about the two broken tiles, and, you will notice, opposite two of the water tanks, was saturated with sewage.

Hoping the above, will be satisfactory,

I remain, yours very truly,

THEO. S. COVERNTON.

R. Zimmerman, M.B.,
Toronto.

Dr. Isambert, physician to the Lariboisière Hospital, Paris, died suddenly at the age of 49 years. Dr. Isambert, connected for several years now with the supplementary course on Laryngoscopy, had made a name for himself in this branch of science, and was the founder of the "*Annales des Maladies du larynx et des oreilles.*

Sulphur is advocated as a specific for ptyalism, by Jukes Styrap, L.K., Q.C.P., etc., in the *British Medical Journal.* It should be given in doses of from 5 to 10 grains every four hours, small doses of opiates being given when the bowels are moved more than once or twice in twenty-four hours.

OBITUARY.—Dr. Henry Landor, the Medical Superintendent of the London Lunatic Asylum, died at nine o'clock on Saturday morning, January 6th, after a lingering illness of many weeks, at the age of sixty-two years. Deceased occupied a similar position at Malden and London for about eight years, his conduct of affairs being very successful. He seemed to realize for some months past that his end was near, and predicted that he would not outlive the winter.—*Walkerton Telescope.*

Two years ago a School of Medicine for Women was started in London, and during two sessions regular courses of lectures on the various subjects included in the medical curriculum have been delivered at the school by some of the first men in London. The design of the founders of the school seems, however, likely to be frustrated by the refusal of the authorities of every medical school in the metropolis to admit the female students to hospital practice, even with the fullest guarantee that they shall not be taught conjointly with, or mix with, the male students. The ladies are now contemplating moving either to Edinburgh or Paris to obtain the necessary hospital practice. In the meantime the British Parliament has passed a Bill to enable all medical examining bodies to admit to their examinations any candidate that may apply, without distinction of sex. The action of the medical schools renders, however, this Act at present a dead letter.

THE CLINICAL SOCIETY.—The Council of the Clinical Society has decided to appoint two special committees, one to inquire into the incubation period of scarlet fever, diphtheria, erysipelas, and typhoid fever; the other to ascertain what deleterious effects follow the prolonged and continuous use of chloral in ordinary doses. The gentlemen who have been requested to serve on these committees are: on the incubation period, Sir W. Jenner, Dr. Murchison, Dr. Cayley, Dr. Shirley Murphy, Dr. Broadbent, and Dr. Buchanan; on the action of chloral, Sir W. Jenner, Dr. John Harley, Dr. Ringer, Dr. Barlow, Dr. Andrew Clark, and Dr. Buzzard. The Society is to be congratulated both on its decision and on the selection of members made.—*London Lancet.*

At a meeting of the Keighley Guardians, the nine anti-vaccinating guardians tendered their resignations, declining to put the Vaccination Acts into force. It was resolved to forward the resignations to the Local Government Board.

The death of Doctor Alexander Ricord, father of the celebrated syphilography, is announced.

GOODYEAR'S POCKET GYMNASIUM OR HEALTH-PULL.—We have great pleasure in calling the attention of our readers to the advertisement of Goodyear's Pocket Gymnasium or Health-Pull. That 100,000 of them have already been sold is evidence of the value set upon them by the public in Canada and the United States. By reference to the advertisement, the mechanism of the Gymnasium and the use to which it may be put in exercising the various muscles of the body, will be readily understood. A book, entitled "Blood and Breath," by Professor J. E. Frobisher, of New York, giving full directions for using the Gymnasium, will be of service to those who wish to go through a systematic course of exercise. The price is moderate and the sizes vary to suit the age and strength. The company have received many commendatory letters, the following extract from one, from Rev. W. T. Tibbs, of Mount Sterling, Ky., being a fair sample: "I think your tubes eclipse any gymnastic invention or health promoter ever made by man."

Miscellaneous.

MIASMATIC ALGÆ.—MM. Lanzi and G. Terrigi have published at Rome an account of observations on the microscopic fauna and flora of the marshes in the Campagna, and endeavour to show that there is a connection between the product of changes in the cells of certain algæ and the cause of malarial fever. Dark granules form in the cells, which at last they fill, and then the algæ rot. They cultivated the plants in an aquarium, and followed the process in all its stages. The algæ develop in the marshes which are formed in winter and spring. When the moisture disappears under the heat of summer, the surface of the ground is left covered by a layer of stinking algæ. The same conditions are found, although not to the same extent, even where there are no marshes, the uncultivated ground being covered, more or less, with putrefying vegetable matter. The authors believe that the dark granules act as a ferment. They are found in the atmospheric dust of the Campagna, from which they can be developed abundantly by cultivation. Lanzi believes that they are identical with the pigmented sphærobacteria of Cohn and the bacteridium brunneum of Schroetter. The authors assert that the pigment-granules found in the liver and spleen of persons who have suffered from malarial cachexia are similar to the granules from the alg cells; and Lanzi affirms the identity of the malaria melanin of pathological anatomists with the granules which result from the decomposition of these plants. The germs were found in the atmosphere of the Campagna to a height of fifty centimetres above the surface of the marshy soil. Lanzi found abundantly malaria-melanin in the liver and spleen of guinea-pigs which had breathed for a considerable time air of the marshes which contained these organisms.—*British Medical Journal.—Med. Record.*

PILLS OF SULPHATE OF QUININE.—In a communication to the *American Journal of Pharmacy*, Mr. H. P. Reynolds speaks very highly of the following formula for the preparation of quinine pills. He has tested the process for over three months, and during that period had made thousands of pills, which have always

given entire satisfaction. He says that the quantities directed are correctly proportioned, and should not be altered. Quinia sulph., gr. 600; acid tartaric, gr. 100; glycerine, *m* 75. Rub the quinia and acid together in a mortar to a fine powder till no appearance of crystals remains, add the glycerine—just seventy-five minims, no more, no less—and continue the trituration till the powder becomes adherent, when it should be beaten into proper form for handling and divided into the requisite number of pills. The mass is firm, solid, rolls well, does not set for some hours—is, in fact, a "beautiful mass," and the pills will be found quite small for their weight, very white if rolled in starch powder, and, however dry or old they may become, they remain perfectly and entirely soluble.—*New Remedies.*

A New Form of Asrirator.—The treatment of effusions in serous cavities, and of some abscesses of internal organs and elsewhere, by the method of aspiration, has become not only thoroughly recognised but almost universal. The various forms of aspirator, from the unwieldy bell-jar to the small and more portable exhausting syringe, with or without a glass cylinder, and the various mechanisms of stopcocks, tubes, needles, and trocars of almost infinite variety and complication, have each and all their advocates. But nearly all these instruments labour under the disadvantage of being costly and somewhat cumbersome, and the perverse ingenuity of instrument makers or their workmen has exhausted itself in the manufacture of appliances which are quite ineffectual for the purposes which they aim to accomplish. It is, therefore, with a sense of relief that we read of a new kind of aspirator which is so simple that, if effectual, it should supersede for most cases the more complicated and costly instruments. To Dr. Gritti, of Milan, belongs the credit of devising it, and of describing its construction and method of employment in a recent number of the *Annali Universali di Medicina e Chirurgia.* The instrument consists simply of an ordinary double-ended india-rubber syringe, resembling the common Higginson's syringe, to the tubes of which are affixed nozzles adapted to fit into the aspirating needles or trocar. Before using the instrument for aspiration the ball and tubes are to be completely filled with water, and after introduction of the needle into the chest (if in a case of pleurisy) the inlet tube is fitted on to the needle, and the instrument worked in the ordinary manner until the desired amount of fluid has been evacuated. If it be needful to inject any disinfectant or other solution after removal of the fluid, this is readily accomplished by reversing the apparatus and fitting the outlet tube to the canula or needle. If the capacity of the ball be previously ascertained, the number of strokes needed to inject any given quantity affords a ready method of measuring how much is thrown in. The apparatus appears to us to possess many advantages, provided always that the suction power of the syringe is sufficiently great. It affords a method of removing the fluid gradually, and with an even pressure throughout the operation; it is portable, cheap, and readily replaced, and it does away with the necessity for a complicated apparatus, the stopcocks of which are a puzzle to the uninitiated, and which is a source of alarm to the patient. Added to this is the advantage of its ready reversal. Should it be found a success, it will be another proof of the simplicity of useful inventions.——*London Lancet.*

An Itemised Bill.—Nélaton was stopped in Paris to restore to their place several feet of the intestines of a wounded man. This man, when well, called for his bill. He was told that it was five hundred francs. Being a merchant, he asked for an itemised bill. Nélaton seized his pen and wrote as follows: "For restoring five feet of intestine at one hundred francs a foot—five hundred francs." The merchant was satisfied and paid the account.—*The Clinic.*

Homœopathic Treatment of Tape-worm.—Every one is acquainted with the fact that a snake is charmed by the sound of soft music; but it remained for a German homœopath to discover that the tape-worm is susceptible of the same influence. So, at least, we are informed by our contemporary, the *Vienna Medical Press.* The inferior orifice of the patient's intestinal

canal is placed in communication with a musical box, which is set a-playing. "We have not long to wait," the homœopathic doctor naively remarks. The tape-worm quickly makes his appearance head foremost, and winds himself along the connecting link toward the instrument. The latter is soon embraced in its turn, and the cure complete, for the parasite has, so to say, abstracted himself. --*Medical Examiner.*

The *Bulletin de Therapeutique* has just translated and republished a very interesting article from the pen of Dr. N. P. Dandridge, of Cincinnati, in regard to the dangers attendant upon the exploration of the rectum with the hand, as recommended by Simon, of Heidelberg, in 1872. The editors have always most emphatically repudiated this procedure, as dangerous in itself, and of little clinical value; and they cordially endorse the statement of Dr. Dandridge as confirmatory of their predictions. So authoritative a condemnation of the teachings of the German professor will certainly deter the surgeons of France from following them, however much they may be commended by other parties.

LEAD POISONING FROM EATING VEGETABLES.

A family consulted De Loos on account of paralytic and other nervous symptoms, which De Loos concluded could only arise from lead poisoning. It was found that the family lived near a place where, twelve years before, lead works had been in operation and had eaten the vegetables which grew around the situation of the factory. De Loos made an investigation and found lead in the red and yellow turnip and also in the endive. In a red turnip a centigramme of lead was found in 650 grammes of the turnip, and in others even larger quantities of lead were found. A trace of copper was also found in the ash of the plants. Copper works had also been carried on in connection with the factory.—*Rundschau.*

EXTRAORDINARY LONGEVITY.—Dr. B. Ornstein, Surgeon-in-Chief of the Greek Army, contributes the following communication (*Virchow's Archiv*, vol. lxvi.), which was received by the editor of the Greek newspaper of Smyrna: "Our fellow-citizen, George Stavarides, died to-day at the age of one hundred and thirty-two years. Though this Methuselah led a rather intemperate life, consuming daily more than one hundred drachms of brandy on the average, he was nevertheless up to the last moment of his life in the full possession of his five senses, as also of his teeth."—*New York Med. Journal.*

"Andrew Cesalpino, of Arezzo, lecturer on Medicine in the University of Pisa, after the correction of Galen's errors as to the function of the liver and the veins, discovered the circulation of the blood through the whole body, which circulation he made manifest by vivisections after ligatures had been applied to the veins, and which in his 'Quistioni peripatetiche' and 'Quistioni Mediche,' published in 1569 or 1593, using the word 'circulation' itself, he fully described. Ill advised was the English Harvey who, in 1628, dared to arrogate to himself the discovery of this mighty truth."—*London Lancet.*

CAUSTICS OF ZINC.—The nitrate of zinc is recommended by Dr. Squibb in Proceedings of King's County Medical Society, as being less deliquescent, and much more manageable than the chloride. "A hot concentrated solution of the nitrate is made; into this a layer of cotton is dipped and allowed to dry. The salt crystallizes in the meshes of the cotton, which can be readily adapted to the contour and irregularities of surface of epithelial growths and the like. This may be held in place by a tampon, which will absorb all excess of caustic."

APPOINTMENTS.

William Watson, Esq., of the village of Weston, and Hiram R. Spooner, Esq., M.D., of the village of Sutton, to be Associate Coroners in and for the County of York.

James P. Rutherford, of the village of Harwich, Esq., M.D., to be an Associate Coroner in and for the County of Kent.

Dr. Bucke, of the Hamilton Asylum for the Insane, has been appointed Superintendent of the London Asylum.

Dr. Wallace, of Orillia Asylum, succeeds Dr. Bucke.

Dr. Beaton, of Orillia, succeeds Dr. Wallace.

THE
Canadian Journal of Medical Science.
A MONTHLY JOURNAL OF BRITISH AND FOREIGN MEDICAL SCIENCE, CRITICISM, AND NEWS.

U. OGDEN, M.D., *EDITOR.*

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TORONTO. MARCH. 1877.

Selections: Medicine.

HYDRO-PERITONEUM.

This case illustrates hydro-peritoneum, or ascites. The enlargement of the abdomen, as you see, is excessive, and it is uniform. A sense of fluctuation can be easily obtained. It would seem that diagnosis, as relating to the contents of the abdominal cavity when it contains fluid, does not involve much difficulty; but there is a liability to error here, as elsewhere. Ascites may be confounded with an enormously distended, or a sacculated bladder; with pregnancy; tympanites; ovarian cyst; chronic peritonitis. These are the more common conditions, perhaps, that are liable to be mistaken for ascites, but there are some other conditions which we will not now stop to consider. This form of dropsy, like all others, is but a symptom. It is convenient, however, to speak of these different forms as we would of different forms of disease, for the reason that we are not always able to trace them to the primary condition upon which they depend.

When it occurs, as seen in this case, it is, in a vast majority of instances, indicative of cirrhosis of the liver. The essential pathological lesion of cirrhosis of the liver is an increase of the areolar tissue in the interlobular spaces. The development of fibrous tissue in that situation is due, it is supposed, to a chronic inflammatory action, which is ordinarily brought about by the use of spirits, and usually taken upon an empty stomach. Taken in this way, the spirituous liquors pass into the system very rapidly, and there is produced, as a local effect, this chronic inflammatory condition. A few indulgences, occasional debauches, paroxysmal drinking, do not usually produce this condition; it is rather the continuous drinking that produces the development of fibrous tissue in this situation, which gives rise to mechanical pressure sufficient to obstruct the current of blood; hence portal congestion is followed by dropsy. Sometimes, in consequence of such portal congestion, hæmorrhages occur, such as hæmatemesis, and hæmorrhage from the bowels.

With this exceedingly brief outline of the more probable cause of the dropsy in this case, and clearly indicated by the history, we will pass at once to the question of

Treatment.—The object to be accomplished is to get rid of the accumulation of fluid; for, enormous as you see it is, it interferes in a most decided manner with the circulation through all the digestive organs, and consequently is a prominent obstacle in maintaining a proper amount of nutrition. Diuretics may be administered, but my experience has been such as to warrant me, I think, in saying that the chances of success by the use of diuretics in these cases is almost *nil.* Hydragogue cathartics would be better; but the effect of these would be to produce more or less exhaustion, and it will be necessary to repeat them over and over again and probably in the end success will not be obtained. Does it not look like plain common sense to introduce a trocar at once and remove this accumulation of fluid that is keeping up a continual embarrassment of the circulation of the digestive organs, thereby giving these organs the opportunity to perform their functions properly? It seems to me the answer is apparent. There has, however, been considerable discussion with reference to the proper time for

the performance of the operation. I have for some years past advocated early resort to this procedure. The more common practice is to postpone it as far as posssble. I believe, however, that the sound practice is, the moment the patient suffers any inconvenience from distension, to withdraw the fluid by some mechanical means. It may be urged, in objection, that it will be necessary to repeat the operation when once performed; hence, it should be delayed until other means have failed to remove the fluid. After each tapping, however, there is a better opportunity for improving the general condition of your patient; so that, if it becomes necessary to repeat the operation, it can be borne much better than at first. It sometimes happens that paracentesis is performed again and again, and the general condition steadily improves, so that finally the ascites does not return.

The *prognosis* is not so bad in many of these cases, for if the fluid is removed and the general condition of the system is so improved that it does not return, the condition of the liver may be one that can be tolerated for a long time.

(The operation was performed by the House Physician in the usual manner, and about twelve quarts of fluid removed from the peritoneal cavity.)—(Austin Flint in *Virginia Med. Monthly.*)

NEW TEST FOR ALBUMEN IN THE URINE.

At a recent meeting of the Société de Biologie de Paris (*Le Lyon Médicale*, Nov., 1876) M. Bouchard read a paper on the employment of the double iodide of mercury and potassium as a test for albumen in the urine. According to him, the test is very delicate, and so much so that the absence of albumen may be positively affirmed, when the urine does not cloud on the addition of this reagent. There are certain sources of error in the test, however, which must be borne in mind:—

1. The error may depend upon the reagent itself, when it can be easily avoided by adding an excess of iodide of potassium to the solution.

2. If mucine be present in the urine, or white precipitate analogous to the albuminous precipitate, it is formed on adding the double iodide, but it forms slowly, while albumen is thrown down at once.

3. If the urates be present, a precipitate may also be thrown down, but it forms slowly in the middle, instead of at the bottom of the test-tube; is not flocculent; and finally disappears under the influence of heat.

4. When the urine is alkaline, a precipitate may form, even if no albumen be present, but it has a gray colour, and becomes black in a few seconds.

5. The presence of alkaloids in the urine may also lead to the formation of a precipitate, but it is not floculent, begins to form in the middle of the test-tube, and disappears under the influence of alcohol or heat.

In a word, every precipitate which persists after the employment of heat, is due to the presence of albumen in the urine.—*Med. Record.*

PLEURISY WITH EFFUSION.

Treatment.—When the quantity of effusion is small, other conditions being good, the pleurisy itself does not place the life of the patient in any great danger. The only immediate danger is from an unusually large and rapid accumulation of fluid in the pleural cavity; but such cases, fortunately, are not of frequent occurrence. In a case like this there is, therefore, no indication for the use of those measures sometimes resorted to to promote absorption when the quantity is large, nor for aspiration. The only indication is to palliate the suffering of the patient by the moderate use of anodynes, render him comfortable, and improve the general condition by the use of tonic remedies and nutritious diet. The patient is anæmic; his lips are pallid; and although he was in good health at the time of the attack, his appearance indicates that his general system is somewhat run down, and therefore demands support. Give it such support, and the pleurisy will take care of itself. We shall find cases, however, in which the indications for treatment, as far as the pleurisy is concerned, are distinct and prominent.—*Dr. Flint in Virginia Medical Monthly.*

MILK DIET.

In the London *Lancet* for December 16th is a clinical lecture by Dr. Geo. Johnson on the use of milk diet, which he commends most highly in chronic diarrhœa, dysentery, and acute Bright's disease. The chief stress is, however, laid upon the value of the method in *acute and chronic cystitis*, and one case of rapid and complete cure in a very severe case of two years' duration is reported. The method of administration is as follows :—

The milk may be taken cold or tepid, and not more than a pint at a time, lest a large mass of curd, difficult of digestion, form and collect in the stomach. Some adults will take as much as a gallon in twenty-four hours. With some persons the milk is found to agree better after it has been boiled, and then taken either cold or tepid. If the milk be rich in cream, and it the cream disagrees, causing heartburn, headache, diarrhœa, or other symptoms of dyspepsia, the cream may be partially removed by skimming. One reason among others for giving the milk, as a rule, unskimmed—that is, with the cream—is that constipation, which is one of the most frequent and troublesome results of an exclusively milk diet, is, to some extent, obviated by the cream in the unskimmed milk. As a rule, it is unnecessary, and, therefore, undesirable, to add bread or any other form of farinaceous food to the milk, which in itself contains all the elements required for the nutrition of the body. When the vesical irritation and catarrh have passed away and the urine has regained its natural character, solid food may be combined with the milk, and thus a gradual return may be made to the ordinary diet, while the effect upon the urine and the bladder is carefully watched.

There are some patients with whom, unfortunately, milk in any form, and even in small quantities, so decidedly disagrees that it is for them as unsuitable a diet as any other form of indigestible food would be.

The doctor also suggests the employment of the milk diet as a preparation for the operation of lithotomy, and states that he has seen two cases in which the vesical irritation and catarrh resulting from a stone in the bladder were much mitigated by the milk diet, the patients being thereby brought into a more favourable condition to undergo successfully, the one the operation of lithotomy, the other that of lithotrity.—*Phil. Med. Times.*

High Temperature.—Mr. J. W. Teale read at a meeting of the Clinical Society of London, Eng., notes of a case in which the temperature as shown by the thermometer was unusually high. The patient, a young lady, was thrown in the hunting field, on Sept. 5th, 1874, by her horse taking a standing jump at a five-barred gate, and catching his feet in the topmost bar, pulling heavily upon the rider. The lady staggered to her feet after momentary unconsciousness, and was seen in five or six hours after by Dr. Teale. She was in a state of collapse and complained of pain in the back. The left fifth and sixth ribs were fractured, but united kindly. There was some considerable pain and tenderness in the back, and the temperature remained from normal to 101° Fah. for some time. On Nov. 3rd, it was 105° Fah.; on the 4th, 106° Fah.; Nov. 8th, 110° Fah.; Nov. 11th, 116°; Nov. 12th, it fell to 110° Fah.; Nov. 13th, 122° Fah.; the utmost limit of the thermometer used. The range of temperature varied very greatly, and no less than seven different thermometers were used to guard against error, but they all registered the same. As the clinical thermometers registered only 118°, Mr. Teale had one of 122° made for this case, but it was not sufficient. He thinks the temperature probably rose to 125°. The patient recovered.—*Lancet.*

Salicin in Chronic Diarrhœa.—Dr. Mattison, in the proceedings of King's Co. Med. So., recommends salicin very highly in chronic diarrhœa, and relates a number of cases in which it has proved successful after every other treatment had failed. He says:—"I commend salicin with confidence, firmly convinced that we have in it a remedy of *unequalled* power in what has long been regarded among the *opprobria* of medical art—chronic diarrhœa. It can be administered in pill, powder, or solution. To adults, preferably the former, in doses of five grains every four hours. To children under two years, one-half to two grains mixed with sugar, or in sweetened water or milk, every fourth hour. In any case, where improvement is not noted within a week, increased frequency of administration is recommended, and in *all* cases careful attention to dietetic details and hygienic surroundings is of decided importance." [We hope it will prove true, but fear it may be like salicin in rheumatism.—Ed.]

Surgery.

CLINICAL LECTURE ON THE TREATMENT OF WOUNDS.

Delivered at the Queen's Hospital, Birmingham.

BY SAMPSON GAMGEE, F.R.S., EDIN.,
SURGEON TO THE HOSPITAL, FOREIGN CORRESPONDING MEMBER OF THE SOCIETY OF SURGERY OF PARIS.

Gentlemen,—Wounds of all kinds must, while you are surgeons, be the objects of your care. The one great question for you to solve will be, how least painfully, how most speedily and most safely, you can assist or promote the natural process of healing.

Teachers, in text-books and hospital wards, differ very widely on the theory and practice of this fundamental part of surgery. I shall not attempt to enumerate their differences, mush less either to confute or reconcile them. My present aim is to place before you the evidence of typical cases, in support of what I believe to be the first and essential principles which should govern the practice of surgeons in treating wounds.

I invite your attention to this little old gentleman, who has kindly attended here this morning for your instruction. He consulted me about two months ago for a cystic tumour, about as large as a hen's egg, in the right temporal region. The skin was very red, tense, and painful, and the hat, though a very soft one, was worn with much difficulty. After transfixing the growth vertically through the base, and peeling out the two halves of the cyst, with its bread-sauce-like contents, I dried the interior of the wound with a fine sponge. The edges were then very accurately approximated, and kept so with a few strips of lint soaked in styptic colloid. A few turns of bandage completed the dressing. When I removed it, at the end of five days, there was not a drop of discharge, adhesion was perfect, and afforded a simple but complete illustration of the surgeon's first intention in treating wounds—to secure direct union. All that is visible of the cicatrix is a very fine, pinkish line, extending upwards about two inches from the right ear.

Please to note—firstly, that the wound was thoroughly dried with a fine sponge; secondly, styptic colloid was used to keep the edges in contact; thirdly, the parts were not disturbed until the fifth day, when union was complete and solid.

Drenching wounds with water during an operation, and washing them with it afterwards, are mistakes. Water favours decomposition, which is the enemy of healing action.

The styptic colloid, used to keep the edges of the wound together, is the admirable preparation introduced in 1867 by my friend, Dr. B. W. Richardson. In removing the styptic-colloid dressing common water should be scrupulously avoided, and a mixture of alcohol and ether employed, or equal parts of absolute alcohol and distilled water, warmed to a little above the heat of the body.

It has been noted that the dressing was not touched for five days after the operation. Once divided parts—be they hard or soft, bones or muscles, skin or nerves—are adjusted with a view to union, the less they are disturbed the better.

A case illustrating the same principles, though on a somewhat larger scale, is that of C. H——, aged forty-three, who was lately in Ward 5, whose right breast I removed on the 20th May, with a small hard gland from the corresponding axilla. Of the operation it only need be said that, according to my usual practice, I cut down upon the sternal origin of the great pectoral and dissected it clean, so as to make sure of thorough removal of the diseased mass. I am convinced that many so-called rapid recurrences of cancer are only growths of pieces left behind, and that *thoroughness* is the very essence of success in extirpation of malignant growths. After removal of the breast, the edges of the wound were neatly brought together by numerous points of silver suture, and dressed with a layer of fine cotton wool and over it picked oakum. An evenly compressing bandage was then applied round the chest, and made to include the arm and hand in the flexed position, so as to fix them immovably to the side. The first night the temperature rose to 101·3°, but it never rose afterwards above 100°.

The wound was first dressed at the end of the fifth day after the operation. A great part

of it being healed by the first intention, a large number of the sutures were removed, and strips of adhesive plaster applied, so as to keep the edges in apposition; a pledget of oakum with a compressing bandage completed the dressing. On June 1st the remaining sutures were removed. The wound was then nearly all healed, and the same dressing applied. On June 3rd (fourteenth day after operation) the entry on the card is, "Patient dressed (as before), and sent home well."

The points in this case to which I wish to direct your attention are—(*a*) the numerous sutures; (*b*) the cotton-wool and picked oakum dressing; (*c*) the compressing bandage; (*d*) the rare dressing.

Metallic sutures so very rarely cause any irritation, that they may be inserted very near each other with impunity. Sutures far apart, with gaping intervals, are comparatively useless. If the cut surfaces are to adhere they must be brought into contact and kept there, and for this purpose metallic sutures half an inch apart, or even less, are most efficacious. I often apply intervening strips of lint soaked in styptic colloid, but in this case only placed over the wound a layer of fine cotton-wool and a pledget of picked oakum. The best cotton-wool for surgical dressings is that sold for jewellers in thin sheets, about eighteen inches by twelve, with alternate layers of tissue-paper. You will often see claims of priority for cotton-wool dressing. I do not pretend to say who first introduced it, but the credit of generalising its application in the treatment of a great variety of surgical injuries chiefly belongs to Burggraeve, of Ghent.

It has been recorded that the breast case was only dressed three times, in the fortnight which elapsed between the operation and the patient's discharge, in accordance with the principle of infrequent dressing, of the minimum of disturbance to ensure the maximum of rest, dwelt upon in the preceding case, and equally borne out by those to be presently brought to your notice. To the same end the smoothly and lightly compressing bandage round the chest very powerfully contributed. Of all surgical agencies none is so beneficent as compression, none requiring more delicate manipulation, none so inadequately appreciated. Under a smooth and uniformly, while lightly compressing bandage, extravasations of blood are absorbed, the healing action is promoted, and a soothing influence is exercised. There must be no constriction—only equable adaptation of surface to surface with the light pressure which always comforts. There must be no squeezing like that of an old college friend's hand when seen after long absence; such pressure as that, if continued, is intolerable constriction. The soothing surgical pressure is like that which you interchange with the hand of a lady, the pleasure of whose meeting is tempered by the respectful regard which she inspires. Your hand adapts itself to hers, and gently presses it wherever it can touch it, but nowhere squeezes it, for fear of offending. Such pressure as that, when employed by the surgeon in the treatment of injuries, always soothes and heals.

To apply a nicely compressing bandage well, you must practise hundreds and hundreds of times, bearing in mind that in surgical, as in all art, the greatest results are often obtainable from the simplest means, provided they be employed with the skill which can only result from the most patient assiduity.

These principles are illustrated by the two patients who have undergone amputations, and who are now before you.

I amputated the middle finger of this man's right hand in the course of my clinical lecture last week. As the result of old injury, the finger was bent and stiff, so as to be in the way. I therefore removed it at the metacarpo-phalangeal articulation, being careful not to wound the palm, and including in the elliptical incision so much of the covering of the phalanx as to admit of easy closure of the wound over the big knuckle. The edges were united by three points of silver suture, a fine drainage tube placed in the lower angle of the wound, which was covered with a pledget of picked oakum; a moist pasteboard splint was now bandaged to the palmar aspect of the limb from the tips of the fingers to the elbow, and the forearm suspended in a sling.

This other patient, aged sixteen, was admitted to Ward 3, the 18th May ult., with his forearm

crushed by machinery within two inches of the elbow. As the bones were not split into the joint, I amputated just below it, utilising some of the least damaged skin to cover it. Where the skin was quite sound the edges were brought together with two points of suture, elsewhere the parts were approximated with strips of lint soaked in styptic colloid, a drainage tube being left in the lower part of the wound. The stump was covered with a layer of cotton-wool and oakum, and rectangular pasteboard splints were applied with gentle pressure to insure perfect immobility and prevent swelling. When the apparatus was opened four days afterwards there was very slight sloughing of the margin of one flap, but the stump was of good colour and healthy temperature, without tension. The same dry dressing with pressure was applied, and the lad was discharged on the 17th of June, a month within a day from his admission, the stump, then quite healed, having been dressed altogether seven times after the amputation.

A parallel case is that of James B——, aged six, discharged the other day from Ward 6. The soft parts of his left lower limb had been extensively crushed by a waggon, and an attempt had been made to save the limb. Sloughing and profuse suppuration had been followed by such exhaustion that the lad might fairly be said to be moribund when I amputated the thigh in the upper third on the 22nd of April. I dressed with cotton-wool, oakum, pasteboard splints, and nicely compressing bandages, and the lad was discharged with a sound stump and in good health on the 15th of June. In the forty-seven days which elapsed from the operation to his leaving the hospital the dressing was only renewed six times.

Not to go over the ground already trodden in commenting on the other cases, I shall only remark on the splints and the drainage tubes employed in these amputations.

Coaptation of divided surfaces once effected, absolute rest is the first essential to the healing process. That rest is best secured, in the case of amputations, by moulding to the stump well-softened pasteboard splints, and fixing them with evenly compressing bandages. As in the case of fractures, the joint above the injury should be included in the splints, and great contributory benefit may be derived from the nice adaptation of sandbags.

Of Chassaignac's drainage tubes in the treatment of wounds it is impossible to speak too highly; but useful as they are after amputations, removal of tumours, and such-like operations, it is in such cases as this breast that their advantages are perhaps most conspicuous.

When this woman was before you last week, her pale, drawn face betokened suffering and exhaustion; the big, pendulous, and exquisitely tender left breast discharged matter through half a dozen openings, the result of post-partum mammary abscesses and linseed poultices. I passed a long probe from the lower aperture on the outer side, under the mammary gland, obliquely upwards and inwards, out at the uppermost aperture near the sternum. A ligature secured to the eye of the probe enabled me to carry a good-sized drainage tube along its track, and I left it there with both ends depending, covering the breast with a good pledget of dry oakum, and suspending and compressing it with an evenly compressing bandage. The poor woman was easy at once, her appetite improved, and she slept well. When the dressing was removed, after a lapse of four days, the breast was soft and much diminished in size; the openings other than those traversed by the drainage tube were healing rapidly, and the woman is now cheerful and rapidly convalescent.

Here is an equally successful case of a different kind, yet illustrating substantially the same general principles which should guide you in the treatment of all wounds. This youth is the son of one of our principal ivory and bone turners, who, while practising the other day with a fine circular saw, nearly cut off the soft pad at the end of the right thumb. He did not consult me until the third day, when the little flap was swollen, the wound dirty, the whole thumb throbbing and being very painful. On compressing the radial joint above the wrist, the throbbing and pain ceased, and I taught my patient how to obtain the relief by effecting the compression himself with the left thumb. I then brought the edges of the wound together with narrow strips of emplastrum elemi, leaving

slight intervals for the escape of matter, covered the end of the thumb with a little fine-picked oakum, bandaged it so as to effect gentle uniform compression, and supported the hand at an acute angle with the arm, by means of a sling supporting the forearm and enclosing the elbow, as every sling, to be efficient, should do. Relief was immediate; the dressing was not touched for four days, and only twice afterwards, at intervals of three days. You see the thumb very nearly a match for its fellow, and a linear cicatrix is all that is left of the ugly wound.

This case illustrates, like the previous ones, the advantages of direct compression, with dry and rare dressings, in the treatment of wounds, and it further exemplifies the benefits to be derived from digital compression in the treatment of inflammation of the limbs.

In proof of the statement that the same principles of treatment are applicable, whether the wounded parts be soft or hard, skin, bones, or muscles, or all combined, you have here two very striking cases. A carter was brought into the accident ward with the scalp torn from the greater part of the right side of the head, and with two compound and depressed fractures in the parietal and frontal bones respectively. The large flap was cleansed, replaced, and united by eight points of suture, picked oakum, and a light bandage applied, and an ice-bag over all. The greater part of the wound united by the first intention. The cicatrix is now quite solid, and the man is doing his usual laborious work without ache or pain.

The last case which I shall now bring before you is that of a porter on the Midland Railway, who was brought to the hospital, a distance of fourteen miles, with the left femur literally smashed just above the knee-joint, a fully-laden coal-truck having gone over the limb. The soft parts were extensively torn, but both tibials pulsated, and I felt justified in the attempt to save the limb. Reduction effected and the edges of the wound approximated, a large drainage tube was passed into it, and a pledget of lint, soaked in styptic colloid, placed over it. The limb was now accurately encased in a pasteboard apparatus from the crest of the ilium to the toes. The apparatus was not opened for ten days, and once a week afterwards. The man barely limps in walking, and is now doing duty as a signal-man at Selby-cut. One and all these cases illustrate my favourite maxim, that REST, POSITION, and PRESSURE are the trinity of healing surgical graces.—*London Lancet.*

NOTES ON CASES OF TRAUMATIC COCCYGODYNIA.

BY F. W. ROCKWELL, M.D.

The disease which forms the subject of these notes was first described by Dr. Nott, of New York, under the name of Neuralgia of the Coccyx.

He removed the two terminal sections of the bone, which had been injured by a fall, and completetely relieved his patient.

This operation, performed in 1844, although it attracted the attention of the profession at the time, seems to have fallen into complete disuse until revived and systemized by Sir James Simpson in 1861, who gave to the disease a name derived from its prominent symptom, and placed it permanently upon the list of recognizable maladies.

So little has been written on the subject in our text-books or reported in our current literature, that I may be pardoned if I glance hurriedly over the opinions of the few authors who have given it any special consideration.

ETIOLOGY.—Simpson himself believed that in almost every instance injury to the bone—such as fracture, dislocation or pressure during parturition, violence inflicted by falls, blows, etc., was the prime factor in the causation of the disease, and in this case he is closely followed by most recent writers, with the exception of Prof. J. G. Thomas, who thinks it "very generally a neuralgic state due to uterine or ovarian disease."

Speaking of the coccygeal nerves, Prof. Erb, of Heidelberg, says (Ziemssen Cycl. Prac. Med., Vol. XI., p. 187): "Whether they can be the seat of a true neuralgia appears still to be doubtful, though a certain number of the cases described by Simpson are probably of a neuralgic character."

Of its extreme comparative frequency among females, who are exposed to all of the causes enumerated above, there can be no doubt, though occasionally found in the opposite sex. Neither is it confined to adult life, two cases having been reported by Herschelman in children from four to five years of age.

PATHOLOGICAL ANATOMY.—Inflammation of the fibrous structures investing the part, or en-

tering into its relations with the sacrum and ischium, seems to be the most commonly accepted lesion. This may be due to injury or to the influence of cold on persons of rheumatic diathesis.

Simpson's first reported case was of this nature, occuring in a woman who had been exposed to its influence while pursuing her avocation as a washerwoman, and necessitating the partial extirpation of the bone for its relief.

Once set up, this inflammation may result in any of the pathological changes incident to its appearance in cartilaginous structures; and we accordingly have different observers reporting cases varying in type from the slightest noticeable lesion, through all the shades of inflammatory change, to complete destruction of the bone itself. Scanzoni found the coccyx very long in a number of cases, unusually movable, or deflected to one side. He also reports cases of inflammation, even suppuration, in the vicinity of the bone. (Schrœder, Ziemssen, Vol. X., p. 560.)

Symptoms.—The sole symptom of the disease is the pain which is developed upon motion of the part either by muscular action or pressure, and which varies in intensity from a dull ache to the most exquisite agony. Sometimes pressure over the posterior surface of the bone will elicit it, while it may be touched from the rectum without any discomfort whatever. In other cases the sufferer can only obtain relief when sitting down, by supporting the weight of the body upon one buttock; while in others stooping, walking, defecation, micturition, or any act which calls the gluteal or perineal muscles into play may cause a paroxysm.

A careful physicial examination is often necessary to differentiate this disease from others having the same symptom of pain localized in the vicinity of the coccyx, such as the fissure or ulcer of the rectum, painful hæmorrhoids, etc.; but in most cases the aggravation of pain produced by pressure or passive movements of the bone will serve to make the diagnosis. Simpson and Thomas lay considerable stress upon the difficulty which the patients finds in rising from or sitting down upon a low seat.

Treatment.—All authorities agree as to the obstinacy of the disease, and its intractibility to any but the most radical treatment, especially in cases having a traumatic origin. Simpson expressed the opinion that permanent relief rarely followed anything but operative treatment, and was accustomed to isolate the bone from its attachments by subcutaneous incision. This is not by any means a simple operation and even in his skilful hands often proved unsuccessful. Thomas recommends as an improvement on this plan the exposure of the bone by incision, the last steps of the operation being completed by the scissors, cutting from below upward, and severing all the attachments between the coccyx and muscles or ligaments inserted therein. Should *this* fail, removal of the bone is the only resource left us. In the case reported below the simpler procedure was not resorted to, since the symptoms seemed to point to destructive changes in the tissues of the part, and the patients insisted upon certain and permanent relief.

The first case is that of Mrs. K., whom I saw with Dr. E. S. Bunker, under whose care she had been for several months. About two years previous to this time, while descending some steep steps into the yard—her arms being filled with something she was carrying—she slipped and fell, striking the sacrum against a sharp edge of the stair.

She experienced acute pain, but managed to crawl into the house after a little while, and in a few days resumed her usual duties. Gradually, however, the pain returned, and finally became intolerable. At times, even when sitting upon soft cushions, ease could only be obtained by resting upon one hip.

Defecation, walking and stooping were all extremely painful, and she was compelled to obtain ease by perfect rest. The doctor had exhausted routine treatment, opiates, tonics, subcutaneous injections, etc., but had only succeeded in mitigating her sufferings. Upon examination per rectum, an exquisitively sensitive spot was found near the base of the coccyx, the patient screaming out when this was touched, even with the greatest care. The coccyx was neither more nor less movable than usual, and pressure made in the direction of its long axis did not seem to increase the pain.

Believing the disease to be in the fibrous structures about the bone, its extirpation was advised and eagerly assented to by the patient.

She was anæsthetized, and an incision about 2½ inches long made over the bone. It was then detached from the soft parts covering it, bent sharply forward and disarticulated from the sacrum, where, without much difficulty, it was dissected away from the rectum and removed.

An ulceration extending through the entire thickness of the periosteum was found upon its anterior surface, in the location which had been so sensitive to pressure. The diameter of the ulcer was about three or four lines. The bone and its articular surfaces were all apparently healthy.

The next day the patient complained of some pain in the wound, but said "the old pain was all gone."

Owing to an accident, the wound, which had healed throughout its whole length, was reopened on the fourth day, and suppuration ensued. The cavity was washed out for a few days with a weak solution of carbolic acid, and the patient rapidly recovered.

The operation was performed in Jan., 1875, and the patient had had no return of the pain.

Case II.—In the following spring I was consulted by Mr. F., who had heard of the case just mentioned, and came to see me in regard to similar symptoms which he had been suffering from.

His history was a most interesting one. About a year before, while descending the companion-way of a vessel, he fell, striking the brass plate of the step, and suffering acute pain referable to the sacral region.

As the steamer was then in port, a physician was called in, who treated him for, "Spinal Irritation."

After a few weeks he resumed his duties, but was again prostrated by the pain, and again treated by counter-irritation, sedatives, etc. He again improved and began to hope himself well, when, early in September, while sweeping out his state-room, he was seized with violent pain and trembling, and compelled to lie down in his berth. Arriving at Chicago, he was taken to a hotel, medical advice was called, and he was cupped and blistered over the sacrum, and given phosphoric acid and strychnia for spinal irritation. After a month's treatment, as he was growing steadily worse, he changed his physician. His new attendant agreed with the diagnosis which had been made, but changed the treatment to one of the salts of zinc. After five month's confinement to bed he returned to his home in the northern part of this State, and was treated by his physician through correspondence until June, when he came to Brooklyn. I saw him just after his arrival, pale, emaciated, and excessively nervous. Judging from his history that a local injury was the cause of his trouble, I examined him per rectum and discovered an extremely movable coccyx, which upon firm pressure caused acute pain of the same character as that from which he had been suffering.

Suspecting an ununited fracture with disease of the bone or cartilage, I suggested the propriety of an operation for its removal.

The following day he was seen by Prof. Armor, who assented to the diagnosis and treatment.

The operation was performed on the 5th, the bone being readily disarticulated and removed. Rather free hæmorrhage occurred from the sacral, which, owing to its retraction into the fibrous tissue in which it lay, was, with some difficulty, secured with a ligature. The bone having been removed, the oozing which was rather free, was allowed to subside, and the wound closed with silk ligatures.

On examining the coccyx, it was found that the cartilages between its first and second pieces were softened and inflamed, and upon sawing open longitudinally the bone itself was found in the same condition, the pulpy detritus being easily scraped away with the finger nail.

The following morning the patient expressed himself as feeling better than he had in a year, and in a week or two was able to ride about and walk moderate distances.

Aug. 10.—A letter from him at Martha's Vineyard, written in fine spirits, though suffering at times from a nervous disorder, which he has had for years.

He is now living upon a farm, and but for

the occasional return of his nervous trouble would be a well man.

CASE III.—Last April, Lizzie C., a tall, spare blonde, entered St. John's Hospital for relief from a "neuralgic trouble," which had become so severe as to interfere with her occupation of seamstress. Eight months previous, when suddenly rising from a stooping posture, she struck the lower part of her spine against the sharp corner of a chair. Severe pain followed the injury and in a few months became almost constant. Efforts requiring any exertion of strength in a stooping position, rising from a chair after sitting a little while, straining at stool, etc., were sure to be followed by exacerbations of sufferings, which finally led her to seek medical advice. The usual remedies gave no relief, and she entered the hospital. On examination I found the coccyx very movable, projecting forward, and so sensitive to pressure that a touch served to elicit groans from the patient. A week or two was given to general treatment while the patient was passing through her menstrual epoch. She was then seen by Drs. Hopkins and Freeman, who agreed with me as to the propriety of an operation.

The patient was anæsthetized and the usual incision made. On exposing the posterior surface, the seat of motion was found to be at the point of articulation with the sacrum, the bone having been violently separated from it at the time of injury. The subsequent inflammation must have been somewhat severe, as the posterior surface of the bowel was found adherent to the concavity of the coccyx, necessating a rather careful dissection to free the bone. One vessel was ligatured, the wound closed with horse-hair sutures and dressed with carbolized oil.

Erosions were found upon the articulating surfaces of the bone removed, though the sacral ones were normal.

The patient made an excellent and rapid recovery, and has remained perfectly well since.—*Proceed. Med. Soc. of Kings Co., Brooklyn.*

A MAN who died in Dublin a few weeks since from the effects of strychnine, stated that he had taken, in one dose, half an ounce of strychnine, one ounce of chloral, and two ounces of opium.

CHRONIC INFLAMMATION OF WRIST AND KNEE JOINT.

Clinical Lecture by Professor LEWIS A. SAYRE, Bellevue Hospital, January 3rd, 1877.

Reported for the *Medical and Surgical Reporter*, by NELSON W. CADY, Student.

Case 1.—J. W., girl, aged fifteen. Here is a girl sent to me by Dr. Elder, of Hoboken, with a diseased wrist joint. As the case is of unusual interest, I have asked her to come over here. As this disease is one which you are likely to come in contact with quite often, and which sometimes requires amputation, but which may be saved if properly managed, I thought I would ask her to show it to you. The disease has been going on three months; the cause of it she does not know. She lives out, and has to wash and wring clothes, and sometimes has to carry coal. She is fifteen years old.

Here you see a girl only fifteen years old—hardly developed—carrying heavy weights, a thing which often produces inflammation of the wrist joint. She has had it covered with iodine for a long time, which took the skin off. Then she applied a flaxseed poultice, and again put on iodine, and more poultices, for the last three months. You see its present condition.

The flexor muscles, being stronger than the extensors, have flexed the hand strongly. Here is an example of the universal law that you have heard me preach about so often; no matter what joint is involved, the first thing is reflex muscular contraction; that adds to the disease, by causing pressure of the inflamed surfaces together, promoting interstitial absorption, and at the same time produces distortion and deformity, as a secondary result. That distortion, as a result of muscular contraction, of course, accommodates itself to the strongest muscles involved in the irritation, and in the wrist usually assumes this attitude; very much like a luxation of the ulna or a fracture of the radius. It is often mistaken for such, but it is not so. It is simply this partial displacement of the hand, owing to the strong contraction of the adductor muscles on the front side of the wrist, and the absorption goes on. Then you have this fungous growth and exudation from the bones of the wrist, what Sir Benjamin Brodie

calls fungus articuli. As you look at it, you would take it for a *rose cancer*, but if you feel it you would think it to be full of fluid. There is nothing in it of that kind, however. It is filled and packed with a sort of gelatinous material, and has a semi-fluctuating feel to it. If you should puncture or aspirate it, you would get nothing, and if you attempted to incise it, you would get nothing unless you squeezed it, when there would come forth a substance looking more like pudding juice than anything else, a mixture of plums, currants, and jelly, and everything suggestive of an indescribable gelatinous mass. You may call it scrofula, if you like.

What must be done, is to apply the same principle as you have seen me apply to a diseased ankle, knee or hip; the same as you have seen me apply to this young one's body, viz.: extension and counter-extension, till you get it to proper position, and then fixation, to keep it there. We are going to put it up in a simple extension splint, and at the same time make her perfectly comfortable until a proper instrument can be obtained for her. A good method is to make a couple of splints of sole leather. These are dipped in cold water, to make them flexible and soft. They are applied back and front, holding the arm where you want it, in a position, not of pronation, but of supination, then moulding carefully to the arm, and finally securing with a roller bandage, Next day the leather becomes like a board. Then the splints are taken off and covered with adhesive plaster, adhesive side out. This is applied to the hand and arm, back and front, and covered firmly with a roller commencing at the hand. When you get as far up as the wrist, make extension and counter-extension, and carry the roller bandage the rest of the way up. The plaster prevents slipping and the leather prevents telescoping.

But this method takes a day or two for its application, and this girl lives in Jersey, and she cannot come over to-morrow. But I can put a contrivance on her arm which will enable her to keep comfortable on the way home. I use a paper splint formed of half a dozen layers of newspaper, which has sufficient elasticity to accommodate itself to the curves of her arm, and enough stiffness to keep up extension. This I cover on both sides with adhesive plaster, adhesive side out. I shall apply it in the manner just described, and follow it up with a roller bandage.

You see that we have here a partial luxation of the wrist. You notice, the moment I touch her hand she has pain. I take hold of her hand gently, and press it toward the body. You see her face gives evidence of pain at once; now I will make it take a different position, and give her ease. The hand is flexed and pronated —why? There is a reason for everything. The pronator muscles are stronger than the supinators, and consequently the pronator drags the hand into the position it now has, flexed and pronated. The hand must be extended and supinated, so that the palm of the hand looks toward the mouth; for if it were left, the girl might be able to carry coal and scratch her neighbour's face, but she could not feed herself with that hand. You may think this is not very much, but it is highly important. And besides, it is just as well to carry the hand in a natural position, as it is to carry it in an abnormal position. If you are going to undertake the treatment of these diseased joints, you must remember this law—always remember to place the limb in the position where it will be of most use to the patient. I can make that girl comfortable in one position as well as another; flexed, extended, pronated, or supinated. Do not, gentlemen, neglect all these little details in your treatment of diseased joints. Remember that that joint and limb is to be of use hereafter, and remember to so fix it that it will afford a maximum of usefulness. So, instead of fixing this hand and arm as they now are, I will, in addition to making extension, make gradual supination, very gently and slowly. You will observe that I am getting it gradually into a natural position, and, as I do so, you can observe that partial luxation more plainly than before. The great secret of doing these things, is to cause as little pain as possible. There is no necessity of hurting your patient at all. And if at any time I cause them pain, I do so merely to convince you that there is disease.

The limb is now in its natural position, and

we apply the paper splints as far down as the carpo-phalangeal articulation in front, and the same behind; then we apply this roller bandage, moulding the paper to fit the hand. Having carried it up as far as the joint, my assistant makes extension, and the roller is carried the rest of the way up the arm, allowing the splints to mould themselves to the arm as we proceed. In order to make the splints stronger, and to prevent telescoping, we apply on the back and front of the arm these narrow, roughly perforated tin strips, and secure them also with a roller bandage.

I have now secured the bones from pressure against each other, by extending and fixing them. Now I am going to make use of the same principle that has caused this absorption of the bones, in order to get rid of the abnormal deposition in and around the joint; I am going to try to get rid of this gelatinous exudation.

We pour the opening full of Peruvian balsam, which is an excellent antiseptic, and allow it to percolate down through that joint. Then we apply a roller bandage over the part, drawing it as tight as I can draw it, and it gives her no pain, as the joint has already been extended. Now this outside bandage shall, from time to time, be increased in tightness, as soon as absorption takes place, so as to get rid of the effusion, and if that is not sufficient, we shall have to place a seton through it, and if any diseased bone is left in the joint, it will have to be dug out.

This is a simple, practical, efficient and inexpensive plan of treatment, and you should have ingenuity enough to apply it anywhere, without being compelled to resort to instrument makers.

Case 4.—Herman ——; man, aged twenty-eight. You remember this young man, who came to us three weeks ago last Saturday, to have his leg amputated above the knee, for chronic disease of the knee-joint. He has had the disease eight years, the result of injury during violent exercise. He was a great athlete and gymnast. It ended in ulceration of the cartilages, and suppuration at the joint, and he was sent to me last June, by a good surgeon, to have an amputation performed. I aspirated the joint, getting about four ounces of matter, and after the joint was emptied, I could bring it in tolerably fair position, and then applied the extension splint, which he is now wearing. He returned home, and for three or four weeks was greatly relieved, until the plasters wore out, and the instrument required re-adjustment. His physician re-applied the splint, as he thought, thoroughly, but it was ineffectual, the plasters being inefficient. He sent him back to me, with a letter, saying that it was useless to continue the treatment any longer, and that an amputation alone could save him, but that he would yield to my superior judgment in the matter.

You can observe the change that has occurred in the period of three weeks. You remember how greatly enlarged were the veins over the knee, and how enormously enlarged was the knee itself. There was a semi-fluctuating feel, and the skin was so tight that it could not be pinched up. Now, the veins are nearly normal in size, and the skin has become loose again. The knee was so sensitive at the time, that a touch would all but set him crazy, and the slightest compression of the articular facets of the femur against the head of the tibia made him wild with agony. This had been his condition for so long a period that his general health became broken down by it. Therefore his physician believed it to be of constitutional origin, and that it could not be remedied save by amputation.

You will come in contact with these cases quite often. All that I did, as you will remember, was to apply fresh strips of Maw's adhesive plaster, put on the instrument properly, apply extension until he could bear vertical pressure without pain, then applied the actual cautery over the internal coronary ligament and bandaged the knee with great firmness. The actual cautery has had the effect of completely relieving the pain, and he says that now it is the soundest part of the knee. I make pressure with great firmness over the point which was so sensitive three weeks ago, and he says it causes no pain.

[The patient made voluntary motion of his knee with great ease, and no pain, flexing and extending his leg quite rapidly.]

Will any man here talk about taking that man's leg off now? He is making voluntary

motion. Three weeks' total rest from pressure, by relieving the parts with this instrument; then by the application of the cautery, changing the action of the distended vessels, and causing them to contract and empty themselves; then by means of firm compression around the part, to cause the absorption of the deposition within the joint, this has effected the change which you see to-day in this man's condition. Now he has got to the point where *massage* comes in; they call it *massage* now-a-days, but I call it rubbing, and manipulation, and friction.

There is another thing I want to call your attention to: that when you use the actual cautery, to let the eschar alone; don't cover it with greased rags, or anything else, but just let it *alone*, allowing it to scab off by itself, and you will have no trouble. There is a peculiar sand-papery grate under the patella as I move it, and I shall move it only enough to knock those rough points down level, then stop.

Here is another point: If you put that supporting bandage around that man's knee, and neglect to guard the edge of the patella you will set him nearly crazy with the agonizing pain. The only pain he has suffered since this dressing was applied was the result of neglecting to guard the edge of the patella. These *little* things must be looked after very carefully. The tendons of the biceps and semi-tendinosus require to be padded with a little wad of cotton before the bandage is carried over them. Sometimes I make this bandage of india-rubber; but, when that is used, it is necessary to exercise great judgment. It is a very dangerous bandage to use, unless you exercise judgment and skill, for you may get it drawn tighter than you wish, and it keeps on contracting all the time, so that a great deal of damage may be done.

Now, to finish up the dressing of this leg, it is necessary, on account of the partial luxation backward of the tibia, caused by reflex muscular contraction, to overcome that contraction in this manner. To accomplish this I first turn the ratchet, to cause firm extension; then I pass a roller bandage *over* the end of his femur, and *under* the framework of the instrument, causing the femur to be forced backward. The same sort of process is repeated with the leg, the bandage being passed *under* the tibia and *over* the framework, and secured by a pin. And now the dressing is finished.—*Phil. Med. and Surg. Reporter.*

WESTMINSTER HOSPITAL.

ORCHITIS TREATED BY PUNCTURING THE TESTICLE.

(Under the care of Mr. Macnamara.)

The treatment of acute orchitis by means of puncturing the testicle having within the past twelve months attracted a considerable amount of attention, the following notes, for which we are indebted to Mr. George Shaw, will doubtless prove of interest. The subjoined cases, as far as they go, certainly seem to present very satisfactory evidence of the value of puncture, while, according to Mr. Macnamara's wide experience, such instances are by no means rare.

Case 1.—H. C——, aged forty-one, a gold-refiner, was admitted on Oct. 17th last with acute inflammation of the left testicle. He was a temperate man and a hard worker, but out of health in consequence of being constantly exposed to nitro-hydrochloric acid fumes. On Oct. 11th he strained himself while at work, and shortly afterwards his left testicle became swollen and very painful, so that he was quite unable to continue his work, and, as the treatment he received at his house did not relieve him, he was taken into the hospital. Ice was kept constantly applied to the inflamed gland, and the ordinary saline purgatives were administered. Under this treatment the symptoms subsided, but on the 24th, without any known cause, the orchitis returned, and on the following day, during his visit to the hospital, Mr. Macnamara ran a grooved needle into the testicle, and allowed a few drops of serous fluid to escape externally along the groove, after which the instrument was withdrawn. The relief was both immediate and permanent; the inflammatory symptoms all passed away, and the patient left the hospital on Nov. 3rd perfectly cured.

Case 2.—Thomas W——, aged thirty-five, was admitted on Nov. 4th suffering from long-neglected gonorrhœa and acute inflammation of the right testicle, the latter having come on suddenly on Oct. 29th, from which time he had been in very great pain. Immediately after admission the house-surgeon, Mr. Poynder, passed a grooved needle into the testicle, and, after a small quantity of fluid had escaped externally, withdrew the needle. The patient alleged that within five minutes the pain had

entirely gone, and did not return again from that time. He left his bed on Nov. 12th, and left the hospital cured on Nov. 20th.

In reference to these cases Mr. Macnamara remarked that they were fair examples of the effect produced by puncturing the testicle in acute orchitis. So far as he was concerned he was unable to determine in any given case if the inflammation was confined to the epididymis, or affected only the proper structure of the testicle; but it seemed to him scarcely probable that inflammation, if attacking one of these organs, would not extend to the other, and under any circumstances it followed, almost of necessity, that an effusion of fluid from the distended bloodvessels would escape into the tunica vaginalis, and perhaps, also, into the tunica albuginea. Every surgeon who had punctured the testicle in acute orchitis must have observed that the escape of a small quantity of fluid along the groove of the needle was not unfrequently followed by instant relief of the pain and a diminution in the hardness of the testicle, and it had always appeared to him that the relief was analogous to that afforded by diminishing the tension of the eyeball in acute glaucoma. Mr. Macnamara further remarked that he could claim to speak with some degree of confidence on this subject, for, some years ago while riding, he was thrown forward on the pommel of his saddle, and injured his left testicle. Symptoms of orchitis soon set in. Happily having been informed by his friend, Dr. Herbert Baillie, only a short time previously of the case of an artillery officer whose testicle had been punctured for orchitis after the plan recommended by Mr. Henry Smith of King's College, Mr. Macnamara got Mr. Culcliffe to run a grooved needle into the inflamed and injured testicle. The relief in his own case was not only instantaneous, but permanent, and for these and other reasons he said he had never hesitated to employ the same treatment on his patients. He himself had never seen any but favourable results follow this mode of treatment, though, of course, he was not prepared to say it was always curative. He added that he felt himself under a personal obligation to Mr. Henry Smith for having introduced into modern practice the plan of puncturing the testicle in cases of acute orchitis, and he could with confidence recommend his pupils to follow this treatment in similar cases, because there are few diseases in which pain can be more effectually and speedily removed.—*London Lancet.*

THE TREATMENT OF ABSCESSES BY HYPERDISTENTION WITH CARBOLIZED WATER.

(*The British Medical Journal*, November 4, 1876).

Mr. George W. Callender calls attention to the difficulty which often occurs in the treatment of abscesses, owing to their cavities being divided by septa, or extending among tissues in such a way as to be really multilocular. In such cases, when they are washed out in the ordinary way, they are not treated to advantage because parts of them are ineffectually cleansed. By hyperdistention of such abscess-sacs, carbolized water can be forced into cavities, however complicated and irregular, and this treatment can thus effect for these abscesses the same result as an ordinary injection will insure with a simple abscess. Mr. Callender describes three cases, one of angular curvature of the spine, another of disease of the lumbar vertebræ, and a third of renal calculus, each attended with abscesses of this character, and in all of which hyperdistention was most beneficial, removing all the serious constitutional symptoms at once, and speedily reducing the abscesses to small non-suppurating sinuses.

The operation may be performed while the patient is under the influence of ether, or the integuments may be frozen by the ether-spray. The following are required: a scalpel where an incision is needed, no open sinus existing; carbolic acid lotion (one part in twenty) diluted to one in thirty by the addition of warm water before using it; a perforated elastic drainage-tube; carbolized oil (one in twelve) on lint for dressing the wound, and gutta-percha tissue for covering this; some ordinary adhesive plaster; some tenax to receive any subsequent discharge (which, however, is very slight); an ordinary two or four-ounce syringe. When it is desirable to make continuous pressure over an abscess after opening it, a pad shaped to the needs of the case, and filled with shot, will be found useful. It acts more effectually than a sand-bag, and is easily made and adapted.

The operation is begun by cutting into the abscess (if no sinus exist), the opening made being of sufficient size to admit one of the fingers. The pus is then allowed to escape, the abscess being emptied as completely as possible.

The nozzle of a syringe is next passed through the opening, and the skin is drawn closely around it by the operator with his left hand; the contents of the syringe are then passed into the abscess-sac. Care must be taken, in doing this, that no pressure is made upon the abscess-wall, or the distention of the sac will be incomplete. Either by using a syringe which throws a continuous stream, or equally well by closing the wound with a finger whilst the syringe is being refilled by an assistant (very little fluid being lost in its reintroduction), the abscess-sac will presently distend quite to or even beyond its original size; and, under these circumstances, the carbolized water necessarily finds its way (as a rule which has few exceptions) into all parts of the cavity, however irregular, and along any channels leading from it. When the abscess has been opened, the amount of injection may be roughly measured as being rather in excess of the quantity of pus let out. When distention has been effected, the fluid is allowed to escape, and if much pus be mingled with it, a second injection may be practised. An elastic drainage-tube, its size varying with that of the abscess, is then inserted and secured, and over the end of this, and over the wound, a piece of lint, twice folded and soaked in carbolized oil, is laid. This is covered with a sheet of gutta-percha tissue and some tenax, and these dressings are secured with some ordinary plaster.

Subsequent treatment consists in the renewal of the dressings, which, to myself, it seems desirable to see to daily. The drainage-tube is gradually shortened as the abscess-wall contracts, and through its canal, if there be any sign of puriform discharge, a little carbolized water may be occasionally injected.—*Med. and Surg. Reporter.*

DEATH FROM CHLOROFORM.—In the issues of the *British Medical Journal* for November 11th and December 16th are recorded cases of death occurring in boys during chloroformization. In both cases the operation for section of the hamstrings was being performed. In both cases inversion of the body was practised, but produced no good results.

CASE OF SPINA BIFIDA, TREATED BY THE IODO-GLYCERINE SOLUTION.

BY JAMES MORTON, M.D.,

Professor of Materia Medica, Anderson's University; and Surgeon and Lecturer on Clinical Surgery, Glasgow Royal Infirmary.

In the beginning of September last (1876) Dr. Milroy, of Kilwinning, informed me by note that, a few days before, he had attended at the birth of a child which was the subject of spina bifida in the lumbar region, and wished to know when it would be proper to operate upon it. To this the reply was that it would be well to allow the child to be fairly over the accidents of birth, unless there was reason to fear the speedy bursting of the tumour, and the consequent draining off of the spinal fluid.

When nearly a fortnight old, the child was brought to Glasgow to be under my care, and this was then done from a fear that an ulcerated or abraded surface on the most prominent part of the tumour might possibly result in perforation of the sac and escape of the fluid, which is known to be so fatal. This abraded surface was more than an inch in diameter. There was no paralysis.

On the 14th September I saw and examined the tumour, and on the day following operated on it by puncture and injection of the iodo-glycerine fluid, which I have used and recommended for such cases. As the sac was neither very large (the size of an ordinary peach) nor very full, little escape of the clear serous fluid was permitted, and about half a drachm of the iodo-glycerine solution was injected. Collodion was, as usual, applied to the opening, and over that a square inch of lint dipped in collodion, which effectually closed the wound. No disagreeable symptoms followed; the sac seemed in part to solidify, and soon appeared to be about half the size it was previous to the operation.

Watching it from day to day, it did not seem to shrink readily, or so quickly as I could wish, and on the 26th September it was again punctured and injection attempted. The size of the swelling at this period was so much reduced that I was very cautious in pushing the trocar into it, and the canula had so little hold and space that it slipped out, when I tried to inject

a little of the solution by placing the nozzle of the syringe in the opening, but I suspect that very little, probably only a few drops, obtained admission. Collodion and lint were applied as before. Next day the whole tumour seemed slightly inflamed, and from that date has continued gradually to solidify. By the 4th or 5th of October, the abraded surface had completely healed, and on the 12th the parents were permitted to return with the child to their home in the country.

It occurred to me that collodion might aid in producing or favouring that corrugation of the skin which is known to take place in favourable cases, and a piece of lint covered with it was laid over the tumour. Whether this expectation may be well founded we cannot at present say, but the application is sufficiently safe, and, indeed, somewhat protective.

The following is, in substance, the report of it sent to me on the 24th October:—"Child well, tumour shrunk a good deal. Has a thick cord of skin a little raised all round it. There is still about the breadth of a shilling of thin bluish-coloured skin covering the centre of it, but it feels firm to the touch underneath, and is nearly quite flat."

This is now the fourteenth case of spina bifida (of which we have any account) which has been subjected to treatment by injection of the iodo-glycerine solution, and of these eleven have proved successful. In all the lumbar cases which I have treated it has been uniformly fortunate, and lumbar cases are known to be much more numerous than dorsal and cervical put together.—*London Lancet.*

Toronto General Hospital.—A new plan for admissions has been instituted by the Trustees. Fifty dollars per annum entitles a subscriber to send four patients in the year to the hospital, without further charge. The subscriber has also a vote for trustee, and is eligible for that position. Municipalities, small towns, and villages can now have their sick poor skilfully treated and nursed at a small cost. The charge for beds in the public wards is now forty cents per day; private wards, eight dollars per week.

Midwifery.

LECTURE ON PROLAPSE OF THE WOMB FROM ELONGATION OF THE SUPRA-VAGINAL PORTION OF THE CERVIX.

BY WILLIAM GOODELL, A.M., M.D.

Clinical Professor of the Diseases of Women and Children in the University of Pennsylvania.

While our patient is getting her ether in the waiting-room let me briefly give you her history. Bridget A. professes to being but thirty-seven years old, although she looks fully forty. She has been married for seveenteen years, and has borne eight children, the youngest of whom is three years old. All her labours very easy and her gettings up natural, save the last one. This one was delayed by metritis, and by an attack of intermittent fever, which yet lurks in her system, and breaks out on the slightest provocation. She never afterward felt like herself, or found herself altogether free from "the whites" and from "bearing-down feelings." Before long a tumour began slowly to protrude, more and more, from the vulva. It was and still is reducible, but, when returned into the vagina and kept there by a pessary, it gives her so much pain that she prefers to let it hang outside, unsupported. Menstruation is free, micturition painful, and the urine, no longer voided in a jet, dribbles over her person. She straddles in her walk, and complains very bitterly of the constant dragging weight, which keeps her from active house work, and is, as she says, wearing her life out. Her conjugal relations are impaired, and this is, of course, another source of domestic trouble.

When admitted, two weeks ago, into this hospital, she looked very decidedly cachectic, and was much reduced by night sweats, and by a diarrhœa of some weeks' standing. She was put to bed, and treated by large doses of quinia, and by frequently-repeated quarter-grain doses of the silver nitrate, guarded by one-twelfth of a grain of opium. Under the use of these remedies her complexion has cleared up, her diarrhœa is under control, and her strength has so far returned as to permit her now to be brought before you for an operation of some severity.

As I separate her thighs, all of you, even

those on the furthest benches, can see this unsightly tumour projecting from the vulva. It is cylindrical in form, rugous in front, and smooth behind. It looks uncommonly like the penis of a horse, and the resemblance is heightened by an apparent meatus urinarius at the apex. The sound, introduced into this opening, passes a distance of a little over five inches up what is evidently the uterine canal. The perineum is greatly relaxed, the vagina wholly inverted. Partly overlapping it and the cervix lies a true excavated ulcer, attributable, as I believe, to the friction of the clothing, to exposure to the air, and to the scalding of the dribbling urine.

I cannot pass this sound into the bladder in the usual way, but on turning its concavity downward I find that it slips in readily enough, and I now feel its tip outside of the body, and at a point not half an inch from the apex of the tumour. Clearly, then, a portion of the bladder and the anterior wall of the vagina form the front and rugous half of the tumour. By passing my index finger into the rectum I can hook it into the posterior wall of this tumour. In other words, there is also a pouch of the anterior wall of the rectum in this protruded mass. Then, again, you all know that the peritoneum is so closely fused to the posterior *cul-de-sac* of the vagina, that the descent of the latter must needs drag down a fold of the former.

So far, good. We have learned that the cervix uteri, the inverted vagina, a pouch each of the rectum and the bladder, together with a fold of peritoneum, go to make up this hernial mass. We are, as schoolboys say, getting warm; but what is it? Now there happen to be just four morbid conditions in which the whole womb, or some portion of it, appears outside of the vulva: (*a*) Inversion of the womb. (*b*) A simple decent or prolapse of the womb as a whole. (*c*) Prolapse of the womb from hypertrophic elongation of the vaginal portion of the cervix. (*d*) Prolapse of the womb from elongation of the supra-vaginal portion of the cervix. Since, very unfortunately, the last three are called by the same general name, that of *prolapse of the womb*, and are accordingly mistaken the one for the other, and since also each one of these four disorders needs its own special treatment, it is of vital importance to determine which one it is. There must be no mistake made here.

Let us reason this matter out. It cannot be the vaginal cervix unduly elongated, for then it, and it only, would form the tumour; nor would the vigina be inverted. Nor can it be either an inverted womb or a simple prolapse of the same organ, because the sound showed not only a uterine cavity, which does not exist in cases of inversion, but one of preternatural length, which places the fundus high up in the pelvis, and it therefore cannot be prolapsed. Again, by firmly compressing the base of the tumour, one can trace high up the stem-like cervix, which feels about the size of one's little finger. The conclusion is, then, inevitable, that the case before us is that most common variety of uterine prolapse, technically termed *prolapse of the womb from hypertrophic elongation of the supra-vaginal portion of the cervix.* In other words, there is a descent of the vaginal cervix without any descent of the fundus, and, consequently, that portion of the cervix above the vaginal collar of attachment must be lengthened out.

Of course, as intelligent men, you will next wish to know the nature of this disease and its causes. Unfortunately these are not so readily given, for it yet remains a moot point whether this elongation is owing to growth or to traction. I incline to the opinion that it is the conjunction of traction and growth—traction mainly, and growth secondarily—that works the mischief, I have not the time for a lengthy discussion on this subject, nor would our patient be the better for it; but suppose that a woman's lying-in has been complicated by some uterine or pelvic lesion, such, for instance, as parametritis or as perimetritis, and this is the usual history of these cases, there will often follow a permanent arrest in the process of involution, both in the womband the vagina. Even that great abutment of the vaginal column, the perineum, remains lax and limp. Unsupported by the perineum, the now thickened and heavy vagina, and with it the bladder, to which it is closely fastened, tend to sag down and drag with them the womb. Now, if the uterine stays yield to this traction, the result is a simple descent of the

womb as a whole, and we get a prolapse proper of the womb. But, should the uterine stays resist this traction, then that portion of the non-involuted, or of the otherwise congested, soft, and ductile womb, lying between them above and the vaginal attachment below, is stretched out. By the constant dragging of the vagina and bladder upon their belt of attachment, the veins of the presumedly softened cervix become constringed, and the blood stasis thus induced gives an excess of pabulum to the part, and growth ensues.

This interpretation may not be the correct one, and the elongation may arise less from traction than from growth. But the main question after all is, Can this woman be cured? She can be; of that I am sure, for have I not promised her that she shall be made as good as new? Could her womb be released from the constant dragging of the vagina and the bladder, the cervix would undoubtedly shorten. You might, then, infer that the proper treatment here is to keep up the unstable pelvic organs by some properly constructed pessary. Theoretically you would be right, but practically you will find that when the womb is stretched out so far as to peep out of the vulva, the pressure of a pessary can rarely be borne by the patient; for when the womb is then returned into the vagina its stem-like neck is forcibly bent double. This I have tested so frequently, and by so many varieties of pessary, that I can speak authoritatively. Were this woman, on the other hand, put to bed, and kept there for many weeks, she might possibly get well. The womb would, undoubtedly, shrink back, but, like an over-stretched rubber band, it would never become so small as when in health, and would tend to return to its morbid condition whenever the upright position is assumed.

What we here need, in order to effect a cure, are a good perineal support to the vagina, and a structural change in the ductile womb. The latter indication is met by removing the vaginal, the only removable portion of the cervix; the former, by constricting the vulvo-vaginal opening. The fillip thus given to the dormant uterine and vaginal tissues, and the prolonged suppuration needful for repairing these tissues, set up the process of involution, which will shorten and consolidate the whole uterine body, and thin down and tone up the thickened and flabby vagina. Besides all this, the vaginal column gains a firm foundation in the new perineum.

But the cervix happens to be a very vascular body, and in its erectile tissue it is no easy matter to catch up and tie a bleeding vessel. So it is best amputated, either by the cold wire of the écraseur or by the red-hot wire of the galvanic battery. But, whatever the instrument, the operation is attended with the risk of cutting off a piece of the bladder or of the retro-uterine pouch of peritoneum. Of the two modes of operating I much prefer that with the hot wire, because the cut is cleaner, and the risk less of dragging into the line of incision important neighbouring organs.

Placing the woman in the lithotomy position, with the thighs supported by two assistants, I first draw off her water, and next proceed to dilate the urethra. By gently stretching open this short and elastic tube by means of a uterine dilator, I am able in a few minutes' time to coax in my little finger. With it the lower boundary of the bladder can be accurately mapped out, and as you plainly see, its tip reaches down to within half an inch of the end of the cervix. With such precautions the bladder should always escape the bite of the wire, but not so with Douglas's pouch. There are no landmarks by which to guage the depth of this peritoneal fold, and the mishap of its injury has happened to the best operators—with no great risk of life, however, if every case has been honestly reported.

Guided by the finger tip, I now transfix the cervix antero-posteriorly with a platinum skewer, entering it just below the lower margin of the bladder, and slanting it upward and backward so that its point shall emerge on a higher level, but not high enough to reach the rectocele. That portion of the cervix lying on the bladder side of the skewer is now noosed in the loop of the battery. While my chief assistant, Dr. Bray, gradually tightens the wire, I carefully feel with my little finger whether any portion of the bladder is nipped. Its walls are out of harm's way, of that I am sure. Would that I could affirm the same thing of the peritoneal fold, but that must be left to chance.

For reasons before stated, I prefer the hot wire. Yet, when called to a distance to perform this operation, as the battery is bulky and its acids dangerous to carry about, I always use the wire—écraseur. But the cold wire does not readily cut through the tough mucous membrane, and, besides, it tends to slip in the direction of least resistance, dragging in the tissues of that side. To remedy these defects, a groove

should be cut around the cervix directly in front of the skewer, viz., between the skewer and the os, and the wire laid in it. A second skewer may also be passed at right angles to its fellow.

The wire will now be connected with the battery and its loop kept taut, and not above a red heat. As soon as the thick mucous membrane has been burned through, I make firm traction at the os with a volsella, and counter-pressure with the electrode. This lengthens out the ductile cervix and brings down more of it to be cut off. See how bloodlessly we have cut through this very vascular body. From the traction made on it, the amputated portion of the cervix is conical, while the seared stump is cup-shaped. From alternate heatings and coolings of the wire, the cut surface also shows concentric circles, like those summer and winter rings by which the age of a tree is told.

My past experience in these cases, and it is not small, assures me that this operation will be successful in reducing the womb to its natural size. It may at the same time also cure the dislocation of the vagina and bladder. For you will bear in mind that the fundus of the womb has not sagged down, and that the same stays that have hitherto sustained it, and which by their firmness have, in my interpretation, caused the lengthening out of the cervix, will afterward, in a measure, sustain also the vagina and bladder, through the medium of the constringed and consolidated cervix. Since, however, the vagina is much relaxed, and the perineum, although anatomically whole, is functionally imperfect, it will be more prudent to narrow the vulvar outlet, and give the vaginal column a firmer base of support. This operation I cannot perform before you to-day, because my hour is up. But it is the same as that for lacertation of the perineum, and one which you will have repeated opportunities of seeing me perform this winter.

As soon as this second operation is over, and I shall do it at once in my private room, our patient will have her knees bound together and be put to bed. When pus begins to form, the vagina will be washed out once or twice a day by carbolized lotions. On this day week all the perineal stitches will be cut, and for two weeks, at the very least, the woman will keep her bed. If left to itself, the cervical wound will not skin over under four or five weeks' time, but the healing process will be hastened by vaginal suppositories of tannin and opium, or by an occasional touch with the silver nitrate. Should the os uteri tend to close, as it sometimes does, through cicatrical contraction, it will be stretched open by the uterine dilator. Finally, in one month's time, if all goes well, our patient will return home a sound woman.—*Phil. Med. Surg. Reporter.*

PUERPERAL GLYCOSURIA.

At the meeting of the Biological Society of Paris on the 11th November, M. Gubler made an interesting communication (*Le Progrès Médicale*, Nov. 18th) embodying the results of his researches upon glycosuria in the puerperal state. He finds that saccharine urine follows suspension of lactation in healthy women, from diseases of the infant, and also when lactation is arrested on account of some slight ailment on the part of the mother, but not if her disease be a severe one—e.g., typhoid fever. The glycosuria can be prevented by slight purgation; it is never very marked, but the presence of sugar in the urine is always sufficient to be detected by the usual reagents. A solution of bichromate of potash and sulphuric acid gives a larger precipitate than the ordinary reagents, possibly because of the existence of some other substance besides glucose. The absence of albuminuria is accounted for on the ground that human milk is rich in lactose, but poor in casein and butter. The conclusion drawn is that glycosuria appears when lactation is suspended, but only when the general health is not much disturbed; it is usually slight, appears in twenty-four to thirty-six hours following the arrest of lactation, and lasts for about a week. Pregnant women sometimes pass saccharine urine, and especially primiparæ, towards the end of pregnancy.—*London Lancet.*

Medical Impostors.—How to deal with pretenders—men who without education or conscience, and with the sole credentials of a tin sign, set out to practice medicine—is everywhere a baffling question. In London the profession has recently formed a protective association for the purpose of prosecuting illegal practice. In this land of freedom, where quacks have just as good a standing before the law as Esculapius himself, prosecuting is simply out of the question. But that some good may be done here by associated action is seen in a recent event in New York. In that city, especially on the east side, a large German-speaking population affords a grand field for imposture. A man named Cilulke, said to be a Bohemian barber, but claiming to be a Vienna graduate, set up a dispensary, where he offered advice and medicine for 75 cents. Certain suspicious diagnosis and certificates of death aroused the neighbouring physicians to combine and set on foot inquiries which have resulted in a public exposure and an erasure of his name by the Health Board. The man now proclaims his intention to secure an American diploma, while the east side profession indignantly call upon the authorities to put an end to the existing fraud-inviting system. Brooklyn has its east side as well as the other cities mentioned.—*Proceed. of Med. Soc. Kings Co., Brooklyn.*

Medical Jurisprudence.

THE BORDER-LAND OF INSANITY.

With Examples Selected from among the Illustrious Insane. (Being a Condensation of a Popular Lecture recently Delivered by Invitation at Different Places in North Carolina.) By EUGENE GRISSOM, M.D., Superintendent of the Insane Asylum of North Carolina, Raleigh.—*(Virginia Med. Monthly.)*

Between the kingdom of Genius and the habitation of Madness, there lies a strip of unknown breadth, which we may term the Border-land of Insanity. In this Border-land have dwelt great numbers of the marked men of their race. The history of those of our fellows who have had glimpses into the greatest glories and the most frightful sorrows that may befall humanity, has for us a fascination beyond the wanderings of a Livingstone in equatorial wilds, or a Kane, amid the frozen secrets of the arctic North.

Philosophers have delighted in distinctions between what they call the faculties of the mind, for the want of a better term. Thus they name the power which receives and registers impressions from without, by means of the senses, *Perception;* the power which compares these and reasons upon them, *Intellect;* the power which is capable of response to outer influences and circumstances, *Emotion;* and the power which, in turn, sets in action the answer of the mind, the *Will.* But these are names, after all, and a mere approach in expression to such and such a capability of the mysterious being within us—the one and really indivisible essence which we call the immortal mind.

I must repeat some facts so well known as now to be simply truisms; but these statements are indispensable in their relations to the conclusions, to which I invite attention.

The instruments with which the immortal part within us reaches the material world is the human brain. Thousands of facts tell us that from that centre, through the nerves of special sense, and also from the spinal cord, by numberless minute branches of nerves to the remotest parts of the body, go the telegraphic wires which bear the mandates of the mind.

There has arisen at this day a school of philosophers who aver that the mind is the mere secretion of the brain,—a force and nothing more, expended in the act, created anew for each operation, and necessarily dying with the body that gives it existence, in the dreary death of annihilation. This specious philosophy, this glittering solution of the complicated phenomena of the mental world, making men the automata of physical force, when pressed to its logical end, knows no conscience, no right or wrong, no Divine law, and, indeed, no God in all the universe—only the likes and dislikes of atoms, and the blind whirlwinds of physical attraction. This dream—for it is only a dream—is spread over the length and breadth of the land, in our papers and magazines, in cotemporary addresses and poems, and is supposed to be entertained by many gentlemen of eminence in the medical world. It has perhaps become necessary for the protection of the young, to show that the faith of our fathers is impregnable, and founded on the rock of truth.

The mind that dwells within us is a spark of the Divine essence, destined to a life beyond the grave. Did I say that the nerves were the telegraphic wires of the system, and the brain the central battery? True; but the operater is the mind, separate and independent from the machinery at its command; and the battery, while sending forth currents of influence to the farthest wires when the connection is unbroken, gives the jangle of unintelligent motion until the directing power of the operator impresses thought upon its quiverings, or direction upon its force, and registers his will in intelligible language. But if the wires are suddenly broken, or slowly rusted away; or if, in the lapse of time, the currents of the battery grow feebler, and die away finally for want of the feeding acids and metals, the play of whose mutual action is transmuted to electric force; or if the lightnings of Heaven seize and for a while range these wires with uncontrollable force—in any and all these cases the operator stands powerless to express his will. But he is nevertheless still existent, and if the damages be not irreparable, he is ready to resume control, so far as the delicate apparatus is re-adjusted and reconnected, and supplied again with the pure and efficient pabulum of its operations.

The proposition I assert is, that there is no such thing as a diseased mind, where the body is in perfect health, implying the brain natural in size, unaffected in its structure or functions by disease, and supplied with pure blood, unvaried by excess or diminution. The *mens sana* always resides *in corpore sano*.

Let any one of these conditions be destroyed by imperfect organization of the brain at birth, or by mechanical injury to its vessels, whether by violence or disease, or by poisoned blood circulating through its structure, and there comes a period when thick clouds envelop the spirit, and obscure mental appreciation, or even directly interrupt its every-day intercourse with men and things, and, by degrees and insensible shades, the man drifts into the catalogue of the insane.

We cannot too distinctly realize that insanity is purely a physical disease, and as such calls for sympathy and care, and restoration, if possible. The time was when insanity was regarded as the possession of demons. As, in the dark ages, the hospitals were attached to the monastic establishments, it was not unnatural, in one point of view, that the discipline enforced among the monks for evil words and deeds, should be applied to the wretched patients committed to their hands. Hence, among the Franciscans, who enforced severe self-chastenings, each miserable lunatic received ten lashes per day to drive out the evil spirit. Stripes, chairs of restraint, tortures equal to the direst imaginations of the Inquisition, bleedings with the lancet, whirling chairs, whose gyrations reached a hundred revolutions a minute, iron cages suspended by chains over tanks of water so that the victims might be submerged to the neck—this frightful picture, which I will not further pursue, presents the system of treatment for these unfortunates, lasting even to 1790, over a great part of the civilized world.

But, by the efforts of the wise and good, men have learned to know that this mysterious possession that for centuries blasted its victims, and set them apart from their fellows as the objects of wrath, or the playthings of devils and demons, was but a disease—one of the ills that flesh is heir to. Like other afflictions, sometimes insidious in approach, sometimes bursting on the sufferer with terrific suddenness, it is nevertheless, like them, a condition to be accounted for on a physical basis, preventable within certain bounds, and its cure, blessed be Providence, also possible, and even probable with favouring circumstances.

Can the mind suffer disease? Then it is pierced with mortal taint and will surely die, beyond hope of resurrection. Thousands of men come back to life and happiness, after even what some would call the death of mind. Why are they not new men, if the soul is a secretion of the brain? How is it possible that each man comes back to his own identity? Who has ever found himself or recognized another as a new being, gifted with a separate and independent mind after the passage through a season of lunacy, even of years? Voice, expression, language, views, tastes, education, whatever individualizes or differentiates one man from another, comes back to stamp him as such a creature of God, his Maker, and no other one.

What constitutes insanity and how the change occurs, I will not attempt to discuss. Hardly any two agree to-day upon precise distinctions in the former case, and the latter is yet an unrevealed book. But we do know its indications and accomplishments. Under ordinary circumstances, it is not the work of one generation. By this it is not meant that the parent must necessarily present the phenomena that we recognise in this disease, but he prepares the way for its development. And this he may do in a great many ways, but chiefly by abnormal and unnatural modes of life. He may gorge the brain with stimulating drinks for years; he may narcotize it with tobacco, or excite it by the fever of gambling at the card-table, or in the chances of speculative business; he may neglect the dictates of a reasonable hygiene, and give his life to mental exertion, keeping the brain filled with blood to its utmost endurance, in the intent study of an idea, forgetful of the needs of physical exercise; he may abandon himself to sensual excess, or neglect the demands of sleep, or pursue the rewards of political ambition, or the vanities of social extravagance, until he has no life to

transmit his offspring, except that which carries with it impaired force and defective structure.

It is a startling fact that this is the sin of the age—excess in one or many of these forms in this era of rushing social currents and conflicting destinies, and day by day retribution strikes her knell. One man is paralysed; another is on the couch of a babe with profound nervous prostration; another is epileptic; another falls under the lightning stroke of apoplexy, like Dickens, or dies like Horace Greely, the victim of insanity; while others again slowly drag out an intellectual night like that of the poet, Joseph Rodman Drake (author of the exquisite Culprit Fay, and for so many years past an inmate of an asylum), while others (in the words of a maniac himself) dwell in a land where

> "There is a winter in my soul,
> The winter of despair;
> Oh, when shall spring its rage control?
> When shall the snowdrop blossom there?
> Cold gleams of comfort sometimes dart
> A dawn of glory on my heart,
> But quickly pass away,
> Thus Northern lights the gloom adorn,
> And give the promise of a morn
> That never turns to day."

Insanity appears to require both predisposing and exciting causes, where it is not the result of overwhelming violence to the brain. The great predisposing cause is left a heritage somewhere in the ancestry of the child. Thousands of years do not obliterate the Jewish nose; the Mongolian eye remains; the fair skin of the Northmen, transplanted eight centuries ago to secluded valleys in Italy, is yet preserved; nay, such a trifle as the Bourbon mouth is retained for centuries. Who does not see the stamp of parentage in expression, in the very shape of a nail, or tone of a voice? Who can doubt that there is at least a similar tendency to transmit the acquired conditions of the brain and nervous system; and the more so as this, of the whole frame, is the most impressible portion?

Just what changes in the structure of the brain invite the access of insanity, it may be impossible to tell. Sometimes there are enormous abscesses within its substance, or areas of hardened or softened convolutions; again, it is studded with minute points of tuberculous or dead material; or there may be but the faintest blush of inflammation; not unoften the lesion defies the naked eye, and only after the brain has been artificially hardened, and a thin paper-like slice rendered transparent and coloured with carmine, and exposed to long examination under the microscope, do the minute degeneration of its tissue, or the enlargement and false arrangement of its circulating vessels, betray themselves. Yet the difficulties here, as brave and industrious as pathologists are in the struggle to surmount the obstacles, are by no means greater than those which confront us on the threshold of inquiry in many diseases, and indeed in the final recesses of every physiological operation. What we call disease is, after all, but a collection of manifestations we term symptoms, hardly absolutely alike in any two cases.

If I must ask you to follow me through the devious ways of philosophers in explaining the road to the goal I would reach, it is that I am ignorant of other modes of approaching it.

We have spoken of faculties, for convenience sake entitled Perception, Intellect, Emotion and Will. Let us briefly trace the successive involvement of these, in the production of insanity.

Through *perception*, the mind takes knowledge of the objects around, and with the aid of memory, marshals them in their absence into a conception. Unreal perception is illusion—the first step away from just observation and conclusion. This is as common as the affairs of everyday life. Any disordered sense may give rise to it. To a jaundiced tongue all things are bitter; in certain affections of the ear, bells are ever sounding, or waves roaring. We pass along a road at night, and are suddenly startled by a white milestone, which assumes the shape of the white-robed ghost of our childhood. Reason soon assures us that this is a momentary dazzle and disturbance of the sense of vision from its true work. But in some lives, illusions by thousands chequer and disturb the whole course of existence. Let us go patiently on to observe.

A *conception* of an absent object is the revived impression which has been preserved in

whole or part by memory. So a hallucination is an illusion that reason does not dispel, but which hangs about the mind seeking admittance into the domains of admitted truth. If we do not dismiss the momentary sight of the ghostly milestone as the glare of disturbed sense, but fly before it, and every moment turn to see it pursue, we are the victims of hallucination. That which more distinctly illustrates hallucination as disordered conception, is the striking fact that men whose eyes are out may have hallucinations of dread visions before them, and so of the other senses.

Perhaps the hair's breadth between the excitement of the sane mind and the beginning of the insane condition lies somewhere here; the one may still compare his hallucinations with past knowledge, and refuse to accept their dominion over him; the other may submit without question, and be lost. Yet, the question has been asked, can the mind be both sane and insane at once?—can these hallucinations ever be the legitimate children of a mind perfectly normal?

The next downward step is to absolute delusion. If pursued by the spectral hallucination which we have described, we some day, in uncontrollable weariness and despair, turn and strike down the monster by our side, and so unwittingly destroy a wife or a child at our feet, fixed delusion has done its work, and henceforth we are numbered among the host of maniacs. Who shall say where the subtle line was crossed? Who shall say what under-current of life drifted us into that maelstrom?

The lamented Greisinger affirms ideas which, briefly stated, show that those whose fate it is to be stricken with a hereditary disposition to this disease, turn imperceptibly to crooked paths which lead only downwards; their cerebral actions are different from those of the majority of mankind. The impressions of the outer world impinge upon an abnormally excited centre; uncommon conditions arise, unnatural dispositions are excited; by-and-bye active irritation sets in; a tendency to weariness follows; imaginations which are for the moment the passing whims of healthy brains are cherished and maintained; by-and-bye the dark and bitter side of life is all they see. The brain disease becomes fixed, its results are reflected in diminished and perverted nerve power throughout the system, and so by impoverished blood, back again to the fountain-head in circling rounds, down to helpless dementia.

It is not the least extraordinary fact, in this curious subject, that what are called the primordial delusions of insanity are so well defined and constantly repeated. The famous man from whom I have quoted ascribes such recurring delusions, not to emotional foundations as their source of production, but rather attributes their direct origin to cerebral disturbances. He beautifully illustrates, by comparing this with the contrast of the walk of the man in health, and that of him whose nerve force in the spinal column has been impaired by disease: "As the ganglion-cells of the spinal cords work together in the most exqusite manner, receiving exact sensitive impressions of the floor as touched by the foot in a regular motor manner, making complete harmony, so by such disease as shows anomalous action of the cells, there is produced, whatever may be the effort of the will, such a walk as exhibits the fatal mark of want of harmony." This occurs in some of the most intractable cases that affect the frame of man.

By completing analogy, the processes giving rise to imaginations, take place in the ganglion-cells of the outer surface of the brain; in the normal state, these actions, though numberless, work together in beautiful regularity; but by the anomalous action of the cells of the cortical substance of the brain, words and imaginations appear without a real existence.

We shall find that the great of this earth have often been the unhappy subjects of the most cruel hallucinations, and even the victims of confirmed delusions, ending not unoften in outbreaking mania or lingering melancholia. We shall find, to the confounding of those who would ignore the nobler part of man and reduce mind to the level of a material secretion, that sages, philosophers and poets have given their grandest productions to the world between the attacks of disease, and during the interval, as it were, when the veil was withdrawn

and the bars broken down that resisted the control of the immortal part over the poor frail shell that subserves its uses in the fleeting present of this life.

I would not rashly say that all the great names to which I shall presently advert, must be placed upon the rolls of the undoubtedly insane; but I will aver that there is not one whose life does not show at some time the evidence of perverted or impaired cerebral force. And in proportion as we discover a tainted parentage, a badly trained childhood, an intense mental strain, or extraordinary physical excess or disturbance, just so far may we trace their wanderings into the mysterious Border-land that I have described—the realm where Genius and Madness rule with divided sway. In the language of Erskine, "To constitute insanity, it is not necessary that Reason should be hunted from her seat; it is enough that Distraction sits down beside her, holds her trembling in her place, and frightens her from her propriety." It is Lord Brougham who declares that "the inability to struggle against a delusion constitutes unsoundness of mind." And in regard to partial insanity, he affirms that the disease is always present, and only not apparent by the accident that the proper chord is not struck at the time. It has often been proposed as a test, that it is indicative of the affection that there be a delusion, if but rarely manifested, and a state of mind incapable of mastering it.

Hallucinations take possession when the reason, having a cloud before it, cannot correct the misapprehension of the lower senses. "It is a state of ideal intellection," says the celebrated Prof. Ordronaux, "in which the reason, after long struggling to maintain its ascendency over the judgment, has finally yielded, but after yielding can still apprehend and compare correctly the relation of things. Thus even the insane rarely have hallucinations of more than two senses."

It is a pregnant fact in this connection, that the original basis of hallucination is often prolonged reverie. Perhaps it is of little consequence whether the cerebral fulness that gives rise to disordered brain action be the result of congested brain without voluntary effort, or the sequel of long continued voluntary and strained attention, especially if the blood vessels, by inheritance, have been weakened to the point of yielding. The melancholy result is the same. Long ago Aristotle said: *Nullum magnum ingenium sine mixtura dementiæ;* and this has been a prolific text. Some writer, indeed, has ventured the observation that "all who have been famous for their genius, whether in the study of philosophy, in affairs of State, in poetical composition, or in the exercise of the arts, have been inclined to insanity or epilepsy, or one or the other of these diseases has existed in the same family."

I will ask you now to consider with me some of the innumerable men of power or of genius who have signally exhibited the fate of humanity when hallucination or delusion leads it away into the Border-land of Unreason.

Charles IX. of France, the impotent boy whose name ruled France, under the sway of his mother, goes to the Castle of Blois to welcome the Protestants Chieftains after long and useless civil strifes. He agrees to the marriage between his sister, Marguerite, and Henry of Navarre, his cousin, and cries, "I give my sister in marriage, not only to the Prince of Navarre, but, as it were, to the whole Protestant party."

The scheme effected, and the Protestants safely insnared in the city of Paris, upon the occasion of the wedding solemnities, the wretched boy gives the signal to the alarm bell that tolls two o'clock on the morning of Sunday, 24th of August, 1572. Old men, terrified maidens, helpless infants, venerable matrons—all are stricken down in their blood. Trembling at the very sound of the deep echo to the alarm, he cries out to stop, but too late. Beacon fires have lit their baneful glares, and alarm bells are sending the signal to the remotest corners of France. Recovering from his terror, fury seizes him, his eyes glare with frenzy; he shouts to the assassins, and grasping a gun, he joins the work of death, shooting, from the window of the palace, the wounded and the flying. Torches are held on high, that his own bodyguard may slaughter in the very courtyard of the palace, the fugitives who stream to the King for protection. "Let not one Protestant be

spared to reproach me!" was his mad shout. What pen can ever picture the terrors of the massacre of St. Bartholomew, which spilled the blood of a hundred thousand Frenchmen! The world was struck with horror. Geneva, to this day commemorates it with fasting and prayer. Elizabeth hung her court in mourning. The pulpits of Scotland rang with the tale. John Knox declared, "Sentence has gone forth against that murderer, the King of France, and the vengeance of God will never be withdrawn from his house."

And the day of retribution did speedily come. The echo of the world's indignation was in the heart of Charles. He, who had, with sublime hypocrisy, told Admiral Coligny, when suffering from an assassin's wound: "Father, you received the wounds, but I the sorrow;" and yet who had seen that venerable body dragged through the streets three nights after, and hacked to pieces in his very presence, was overcome now—not by the fear of man, but with a frightful, indescribable, nervous horror. Everywhere around him he saw the spectres of the gory slain, showing their gaping wounds and attended by threatening demons. He became morose, gloomy, and finally, completely silent. He left all society, and month after month the scorpion fangs of remorse gnawed his heart. Finally, his very bedclothes were crimsoned with a sweat of mortal agony. His aspect of profound misery drove off all human companionship. He groaned and wept and forever cried, "Oh, what blood!" He is deserted by all but his nurse, and he calls out with despairing cries, "What blood have I shed?" and dies—cut off at twenty-four. The very courtiers turn away from a corpse so accursed, and but three gentlemen in all France are found to accompany the body to its tomb in the vaults of St. Denis.

The history of royalty is full of proof that the brain whereon the crown rests is often no more fit for royal cares, than that which the plaited straw surrounds in yonder poor maniac's dream.

Thus read a page or two of the life of Frederick the Second of Prussia, the father of Frederick the Great. For a dozen years before his death, and after long and repeated seasons of the extremest debauch, the King's health gave way; what the world recognizes as hypochondria, set in; a state of profound despondency and bodily suffering. He became as autere in religious observance as before he had been wild in excess. All conversation in the royal family was forbidden, except upon religious topics; he compelled all its members daily to read sermons and sing hymns. He obliged the prince and his sister to eat most nauseous dishes—would even spit in their food—addressed them always in severe language, and struck at them with his crutch. His disease was plainly exhibited when he tried to strangle himself; but his life was saved by the Queen.

Having beaten Prince Frederick more than once to the point of exhaustion, he seized him finally by the hair and threw him to the ground (for his physical strength was great), beat him as long as it gave him satisfaction, when he dragged him to the window in maniacal fury to throw him headlong, but was happily prevented by those who came to the rescue. Failing in the effort to secure a renunciation from the Prince of his right of succession, he allowed him to attempt to escape, in order that he might obtain sentence of death upon him, by a court-martial; and that he tried to anticipate by an attempt to run him through with his own sword. Failing in the sentence of death, he condemns both the Prince and his sister, his child and tender daughter, to the cold cell of a prison, and begins a course to convert them to Christianity.

Writing a letter to the prisoner's chaplain, he betrays the long cherished delusion that had mastered his brain. He knew, he said, that his son had a heart of iron, and was a puppet in the fangs of Satan. All this was to drive out the demon and convert his unhappy boy to a reasonable being. The Prince was confined in a miserable room, and on the very edge of starvation for a great length of time. The King never recovered his reason; yet such was the ignorance of that day and the sacredness of power, that he grasped the crown to the very last. It may even be doubtful if the child of so much persecution, the great Frederick, did

not himself exhibit the deep mark of his father's malady, in a thousand minute details which we will not stop to reckon here.

Indeed, so far from peace and health and strength as the heritage of the imperial purple, the dazzling seat of power has always held some uneasy, toppling wretch, whose sceptre was half unreal in his nerveless grasp. Philip of Macedon was once insane; King Saul is clearly pictured so; Mahomet was an epileptic, given to magnificent visions; Cæsar was another epileptic, and, as Cassius says, like a sick girl when the fit was upon him. Napoleon believed in his star as ruling his destiny; he is reported also to have suffered from epilepsy, twin sister of madness; he is known to have lost a great battle when in much bodily suffering and confusion of ideas from a fit of indigestion; he was not unoften surprised in profound solitude watching some airy figure of his brain, and holding his hand to the retreating shade.

On the other hand his antagonist, Castlereagh, the architect of the Union of Ireland with England in one legislative body, whom parliament thanked for his labours in the settlement of Europe, after the fall of Napoleon, became shattered in mind from the great labours of the session of 1822; and although known to be in a fit of insanity, his physicians allowed him to go to his seat in Kent, where he soon took his own life.

(To be continued.)

CASES OF ANIMAL POISONING IN GLASGOW.

The last meeting of the Glasgow Pathological and Clinical Society was completely taken up with the consideration of three cases of animal poisoning. Of the three fatal cases of hydrophobia lately in the hospitals, two were examined after death, and these two were brought up for consideration at this Society.

In the first case, Dr. Forrest gave some interesting information as to the retriever bitch which had inflicted the bite on her master's hand. She had just had six whelps, and before inflicting the bite she had become peculiarly ill-natured, had refused to let her pups suck, and had snapped at various persons; she had also bitten her pups, one of which, at least, had died under some suspicion of hydrophobia. Dr. Dunlop gave a full account of the man's condition after admission to the Royal Infirmary, and described minutely the excitement and the spasms from which he suffered. The other case (the last one occurring in Glasgow) was that of a police sergeant who had been bitten on the hand by an unknown retriever, which met the officer while he was walking along the street. Symptoms of hydrophobia became developed in a month; he had been under observation all this time by Dr. McGill, the police surgeon, who at once removed him to the Western Infirmary on the appearance of the symptoms. Dr. Alex. Patterson detailed the course of the illness while the patient was in his wards. The man died on the fourth day; on the night before his death the spasms had almost completely disappeared, and his general appearance of improvement was such as to mislead the nurses into supposing that he was much better. The wound in the first case had been cauterised immediately with nitrate of silver; in the second case it was cleaned with a strong solution of carbolic acid immediately after the injury. The post-mortem appearances were negative, except as regards the microscopic examination. Dr. Joseph Coates showed to the Society numerous sections under the microscope, exhibiting in the pons Varolii, in the medulla oblongata, and in the cord, a very marked infiltration of the sheaths of the vessels with inflammatory cells, and in one instance the section made revealed a small hæmorrhage. He also found some such accumulation of cells around the vessels in the neighbourhood of the bite, this being apparently out of proportion to the other appearances of inflammation present. These lesions were found in both cases.—*Lond. Lancet.*

Aphthæ, vesicular eruptions, diarrhœa, hæmorrhage from the bowels, giddiness and sore throat, have, in some cases, followed the use of salicylic acid.

Translations.

On Free Incisions in Diseases of Bone.

From *Le Progres Médical.*

In the course of the present (last) year M. Gosselin published a lecture, which has actively attracted the attention of the savants of our country (Ireland), upon the advantages which result from free incisions in serious affections of the bones. Every surgeon had long since recognised the necessity of a similar treatment when there was reason to suspect the presence of an abscess. The views of the learned professor have given a new impetus to this surgical operation, and have favoured its application to other diseases of the bones. The following case, which recently came under my observation, corroborates the value of the treatment in question. The woman, B. R——, a servant, hurt her left elbow in November, 1871. A trivial discomfort was the immediate result; the trouble increased up to March, 1872, when she was obliged to enter the hospital. She remained there three months, and experienced, after various methods of treatment, a certain amelioration. She then left the hospital, and after going out the pain continued to increase, with varying degrees of intensity, up to November, 1874, when she found herself obliged to re-enter the hospital. The pain had then become intolerable, and the arm manifested several local symptoms, which gave rise to a belief in the presence of an abscess in the bone. All the efforts of the physician were futile, and the suffering of the patient was extreme. Sleep had entirely forsaken her. Nothing could procure her the least relief. Everything strengthened the belief that she would end her days in the midst of distracting torments. Believing in the presence of an abscess, I resolved to do an operation. The patient was put under the influence of ether by my clinical assistant, Dr. Hourigan.

The bones forming the elbow-joint were exposed by means of an incision over each condyle, and the edge of the bistoury divided the periosteum, and entered slightly into the bone. I removed, moreover, a circular morsel of the external condyle at the same time as the trephine, taking this piece of bone precisely at the spot where I suspected the presence of the abscess. I was mistaken in my expectation; *no abscess appeared. Nevertheless, an immediate relief followed*, and the patient was never so delighted. She slept perfectly the next night, and every night for several weeks, without any pain. Some days after the operation I removed some bits of charpie, in order to hasten the cure; the pain reappeared immediately; I persuaded myself to replace the charpie, and the suffering disappeared. I withdrew a second time, after fifteen days, and the pain did not recur. For several months the woman was entirely free. Later, the pain gradually returned, and compelled the patient to enter the hospital a third time, in December, 1875. She experienced no pain in the outer side of the arm, which had been trephined, and the pain on the inner side of the elbow, although severe, was as nothing, compared with what had been felt before the operation.

Encouraged by the partial success of the first operation, I resolved to trephine the inner condyle. This operation, like the first, resulted in the total relief of all suffering; but, as on the first occasion, the pain returned after some months, but always in a mitigated form. In looking at the effects and results of the foregoing operation, we do not wish to, and we could not exactly, regard it as a complete success. We dare, however, affirm that an operation which procured an evident relief, even though not permanent, to a patient suffering such excruciating agony, in whom all other treatment had failed, is a great boon to humanity, and a very valuable addition to our therapeutic science.—Th. Loffar.

Note upon Boils and Carbuncles and Their Abortive Treatment.

BY DR. THEODORE ROTH, OF EUTIN (DEUTSCHE KLINIK).

From *L'Union Médicale du Canada.*

Murray, of Glasgow, having recommended caustic potash as an abortive remedy for benign carbuncle after a previous crucial incision of the swelling at its commencement, the writer, moreover, observing that when this cauterisation is done in a very superficial man-

ner, it can produce a favourable change in the carbuncle, depriving it of its deleterious character, states that this cauterisation is always, so far as the medical attendant is concerned, a practice which demands the greatest attention, because this caustic agent so readily becomes liquid on exposure to the air, and can then burn more deeply than the physician may desire. He also recalls with emphasis, and as giving support to his point of view, two new observations, in which he recommends the methodical and energetic employment of grey mercurial ointment as an abortive remedy in cases of anthrax and furunculus, a remedy which he extols again as mild, innocuous, sure, and speedy. In a few hours it causes a mitigation of the violent pains in the neighbourhood of the carbuncle, and in three or four days causes them to disappear completely, whilst the anthrax does not only not extend further, but even becomes less in all its dimensions, so that in about a week the patient is no longer inconvenienced, and at the end of some days the swelling is entirely dissipated.—*Revue de Thérapeutique Médico Chirurgicale.*

Cure of Amblyopia and Amaurosis by the Nitrite of Amyl.

From the *Gazetta Medica Italiana.*

A lady, forty-two years of age, not having menstruated for two months, was seized with a severe metrorrhagia, which lasted a whole day, and was followed by great prostration. After five days the vision of the right eye was perceptibly diminished. In the evening the amaurosis was complete; on the following day the left eye was seized. At the end of about a week, the time necessary for the partial restoration of her strength, the lady presented herself to Dr. Steinheim. On the left side the blindness was complete. On examination the retina of the left eye appeared at one point to be sensible of the action of the light; the pupil was moderately dilated, but absolutely immoveable. The dioptric media remained transparent, but the opening of the pupil was grayish white and turbid. The margin was surrounded by tortuous vessels, arterial and venous. The artery was conspicuous from its fineness; but, on the other hand, the vein was engorged with blood and much dilated. The author poured out on some cotton eight drops of the nitrite of amyl, and directed the patient to forcibly inhale the vapour. When the vascular turgescence, caused by the inhalation, subsided, the dose of the liquid was repeated. Subsequently the patient was kept in a darkened room and strictly dieted. The medicated inhalations were employed several times during the day. Nine days after the commencement of this treatment, the amelioration was perceptible, and, after five weeks, the cure might be regarded as complete.—*Revue Méd. Chir. de Vienne e Bulletin Gén de Thérap.*, Dec., 1876.

Treatment of Convulsions in Children.

From the *Revista Medico-Quirurgica* of Buenos Ayres.

M. Blachez, in charge of the Supplementary Children's Clinic, laid down in one of his last lectures the following rules of conduct which ought to guide our practice in these cases:

If the attack is single, and shows no signs of recurrence, the physician ought to content himself with calling hygieanic measures into force, such as proper conditions of ventilation, &c. If the attacks are persistent or repeated at short intervals, revulsives should be employed, running over the whole of the lower limbs, and applications to the temples of compresses wet with cold water, or water mixed with ether.

At the same time it is right to employ compression of the carotids recommended by Trousseau. By this means the improvement commences in two or three minutes, and if, after this time, it does not manifest itself in a very evident manner it will be useless to persist in it. Then it will be convenient to have recourse to inhalations of chloroform, given gently, and never in a rough manner, it being here more important than ever to remember the sage precept of allowing the air to penetrate, mixed with the vapours of chloroform. In certain cases there may be some special indication to fulfil, as for example, the administration of an emetic, if it is well established that indigestion is the cause of the convulsion.

Once the attack subsides, it is necessary to modify the general eclamptic tendency, by

having recourse to antispasmodic remedies. There is need for much prudence and no lack of importance in the dose which is ordered. In a child from 8 to 15 months, the powder of gentian ought not to exceed 30 centigrammes; and in children of 7 years, not more than 50, always beginning with 5 centigrammes. The maximum dose of Belladonna powder would be about 10 centigrammes, beginning with one and gradually increasing. In the administration of this substance it is necessary to exercise the closest observance of the throat and pupils. The oxide of zinc in doses of ten centigrammes every two hours, and the same of James' powder in which M. Blachez does not recognize any special advantage. For the fulfilment of all the indications the bromide of potassium and the hydrate of chloral are preferable. Of the first, 10 to 20 centigrammes every two hours until 50 or 60 are reached in a child of the first-named age, and 2 or 3 grammes in one of 7 years. In case the effect of the medicine has not become apparent in twenty-four hours the dose must be increased. The bromide of potassium, mixed with the chloral, gives the best results, the dose of this last being 25 centigrammes in the infant and 50 in the older (child). — (*Crònica Mèdico Quirùrgica de la Habana.*)

On the Treatment of Fractures of the Elbow in Children.

From *L'Union Mèdicale Du Canada.*

The work of Dr. Berthomier, inspired by M. Laroyenne, Surgeon-in-chief to La Charitè de Lyon, raises a point of surgical practice of the utmost importance. In the case of fracture of the elbow in a child, ought one to fix the limb in extension or flexion? According to these writers, what is most to be feared in the child is not traumatic arthritis, which is almost nil and rarely produces anchylosis, but the vicious position of the fragments, which in almost all cases is the cause of the difficulty in movement. They have been able to verify this fact in a large number of children. Now, setting out with this view, that the only position capable of securing an exact co-aptation of the fragments is extension, they have treated, for several years, all fractures of the elbow in children by this method. In all the cases (of which the notes are related in this thesis) they have been able to observe that the consolidation once obtained in this good position, the joint stiffness does not resist an appropriate treatment of 15 or 20 days duration, sometimes less, so that the articulation enjoys the whole extent of its movements or very nearly so.

They take care to add that in some cases the opposite indication presents itself when there is reason to fear complications arising from the constitutional condition of the patient, such as white swelling in scrofulous subjects, &c.

Finally, according to these gentlemen, the epiphysary luxation backward of the epicondyle (a rare accident) requires the immobilization in the flexed position. (Thèse de Paris, 1875.— *Bulletin Gen. de Therap.*

From *Le Progrès Médicale.*

At the session of the Biological Society, on Dec. 9th, 1876, M. Tripier presented a communication upon the different action of the right and left pneumogastric nerves. He first recalled the experiments made by himself and M. Arloing, from which it appears that the right pneumogastric acts more especially upon the heart, and the left upon the lung; but he mentioned that variations exist, according to the kinds of animals and individuals. Section of one of the pneumogastrics may produce death. There exist, in the records of science at least, two cases of death in man after section of the right pneumogastric nerve. In the ass, out of twelve sections, M. Tripier has observed seven deaths, the section being four times on the right side and three on the left; in the rabbit, out of nine sections, three deaths, three times on the right side; in the horse, on the contrary, out of more than forty sections, he had seen death result on only one occasion; this was after section of the right pneumogastric. It appears that in some cases the cause of death was due to a paralysis of the lower part of the œsophagus from the accumulation of boluses of aliment in that part of the digestive tube, and their penetration into the air passages. In ligature of the great vessels of the neck it would, therefore, be dangerous to compress the pneumogastric nerve. M. Moreau, in the name of M. Philippeaux, communicated a series of experiments, having for their object to determine how many days after the section of one pneumogastric the other might be cut without killing the animal. The interval between the two sections ought to be thirty days in the case of the cat; sixty, in the dog, and eighty, in the Guinea-pig.

From *Le Progrès Médical.*

In a concise and interesting thesis, M. Le Dr. Hoelling shows—(1) That the whole etiology of lymphangitis of the newly-delivered can be summed up in one expression—fissure of the nipple; and that (2) we can, by means of appropriate treatment, obtain, as a constant result, cure of the disease, and arrest of the development of the abscess. In order to do this it is necessary to have recourse, without delay, to compression. A poultice of linseed meal is applied to the affected part; the breast is wrapped up in a layer of cotton-wool, and the bandage, known in minor surgery under the name of "triangle-bonnet for the breast," is applied. The piece of bandage is a triangle, about a metre (39·37 inches) in length, from one extremity to the other, and fifty centimetres (about 20 inches) from apex to base. The base of the triangle is placed obliquely beneath the affected breast; then one end is brought under the corresponding axilla; the other over the opposite shoulder, and they are tied together upon the shoulder blade. The apex of the triangle is then brought over the front of the affected breast; it is carried over the corresponding shoulder, and is fixed solidly behind. The essential indication to be fulfilled is to thoroughly raise (support) the breast. The effects of the treatment thus carried out will be almost marvellous, according to Dr. Hoelling. For his part, he has always seen a cure rapidly follow, and no abscess is developed under these conditions.

From *Le Progres Médical.*

At the meeting of the Biological Society, on the 2nd Dec., 1876, M. de Sinéty said he had examined the genital organs of a young hysterical woman who had died in M. Charcot's wards. She had been regular for thirteen years; and her courses had last appeared two months before her death. The uterine mucous membrane presented all the characters usual at the time of menstruation, and yet no Graafian vesicle existed in the ovary, even at the approaching period. Putting several facts together with this, he came to the conclusion that ovulation and menstruation may be performed separately. M. Tubler reminded them that in his work on "Les Epistaxis Uterines" he had pointed out this independence of the two functions.

THE CANADIAN
Journal of Medical Science,
A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor.*

TORONTO, MARCH, 1877.

SUBSCRIBERS' DUES.

Our Subscribers will see, by referring to the printed address on their *Journal*, the date at which their subscriptions became due. *Verbum sat.*

PROFESSIONAL JEALOUSIES.

The jealousies existing among the members of the medical profession cannot fail to be the subject of deep regret to all who are sincerely devoted to its advancement. The conviction forces itself upon us, moreover, that, by the great mass of the profession, the gravity of the consequences of these jealousies, not to the members of the profession alone, but to society at large, is not as fully appreciated as it ought to be. With so many of us the remunerative aspect of the profession becomes so all-absorbing that anything relating to our professional improvement is completely overlooked. One cannot help feeling, after a close observation of the course of some medical men, as if their interest in the profession was measured entirely by the pecuniary returns to be realized. Their whole behaviour exemplifies the idea that, only in proportion to the remuneration they can secure from anything they undertake are they willing to labour. And thus we are being carried along by the ever-widening current of this professional selfishness. Alienations from each other are becoming more marked every day, and the general aspect of the relations of medical men in their intercourse with each other is constantly becoming graver. If, as a class, we could keep more prominently before us the

grander and more philanthropic aims of the professsion, the bond of union between us would be much stronger, and, as a consequence, we would be much more helpful to each other in the struggles so common to our calling.

Various circumstances are the occasion of these professional jealousies. A very prominent one, here, has grown out of the existence of rival schools of medicine. We do not desire to be understood as intimating that professional jealousies are a necessary element of the existence of rival institutions; although we do think it will be granted that they are a pretty constant characteristic of their history in this country. But we see no good reason why, when such institutions do exist, their relations with each other should not be of the most friendly character. Their aims should be, in all respects, precisely the same, namely: to render their character such as to afford the most abundant facilities to their patrons for the pursuit of their education, and so attract as many as possible within their walls. No one would object to a rivalry so generous as this. On the contrary, the school established and conducted upon the basis that no lawful expedient should be omitted which can in any way contribute to the thoroughness of the discipline offered to its students, is entitled to the largest share of consideration. But when this rivalry is degraded into that kind of petty jealousy which prompts the advocates of any school to resort to the most questionable devices in order to secure an advantage over the rival school, we have a condition of things very much to be deprecated. Bitterness must, of necessity, spring from such a line of conduct, and it will develop itself among individual members of these rival bodies, and be carried into private practice. Surely there can be no reason why feelings of animosity and general distrust should be created between members of the profession because they happen to be actively engaged in rival institutions labouring in the interests of medical education. It were, doubtless, well if, in a place of the population of Toronto, only one efficient medical school existed. The work accomplished by both of the schools now in existence might be quite as well done by one. But even this much is not certain. A fair and honourable rivalry has many wholesome features connected with it. The very existence of a vigorous opposition often results in a degree of energy on the part of both contending parties such as would not exist but for that opposition. We are not, therefore, inclined to deprecate the existence of rival schools so much as the manner in which the rivalry is conducted, and its inevitable consequences.

Another of the sources of professional jealousy is the disposition on the part of many medical men to underrate the abilities and general professional attainments of their neighbours. This is, undoubtedly, a grave offense. Public caprice is so great towards our profession that the bare intimation by one physician that another has exhibited a want of skill in the management of a case is taken as a *bona fide* assurance of gross incompetence. We all know how easy it is, in case of the fatal issue of disease, for the friends to be impressed with the idea that if Dr. B—— had only been called in when Dr. A—— took charge of the case, a very different result would have followed. In the great majority of cases such reflections are groundless. And if a medical man has conscientiously used every effort which commended itself to his judgment, and has not been guilty of a reckless disregard for the life or safety of his patient in any way, he ought not, upon a mere probability that he has committed an error, be subjected by a professional brother to the imputation of unskilfulness. The fair presumption is, that no one passes through his entire professional career without making some mistakes. To intimate the contrary would be to presuppose that medical men have attained to a degree of perfection not known in any other sphere of human activity. So long, therefore, as the most skilful and the most judicious are liable in this respect, it must be manifestly unfair to attempt to make one man more responsible than another so long as his general professional career is marked by a satisfactory acquaintance with his calling and an honest devotion to its various objects. Well, it is this disposition on the part of many men, calling themselves respectable, to make capital out of the accidental failures of their professional brethren, which is constantly creating breaches that often widen rather than otherwise. We are prepared at all times to expect such treatment from professional quacks who live and often fatten upon misrepresentation and vilification. But we have a right to expect that every medical gentleman, professing to follow the same general system of treatment with ourselves, shall not, by depreciatory inuendos, damage the reputation of his neighbour for the sake of elevating himself in public estimation.

Jealousies often manifest themselves among the senior members of the profession towards their less experienced brethren for no better reason than that they have the advantages which matured experience brings with it. Ripe experience is, perhaps, more valuable in our profession than in any other. The oldest of us are liable to come in contact with a phase of disease entirely novel, and so to learn something every day of great practical import to us. We would not, therefore, seek to undervalue practical experience in any branch of our profession. But we do think that, when young men are treated as though their opinion upon any question of medical practice was of no moment, and they are continually being reminded by their senior brethren of the fact that they are only children yet, and that, therefore, they ought not to be heard at all, professional jealousy has reached an offensive and very undesirable point. Besides, it is the most uncalled for manifestation of jealousy. A man of large experience in his profession, and who has utilized such experience to the utmost of his ability, has so vastly the advantage of the young man that he can well afford to be generous. He is never in danger of being supplanted so long as his vital energy is such that he can still devote himself to the vigorous pursuit of his profession. Even in his declining years, he is always regarded by the young man as a valued counsel in cases of emergency and doubt. It is much to be regretted, then, that, in not a few instances, the older members of the profession are disposed to behave as if they had never been young themselves, nor required the sympathy which young men always feel that they need so much. If young men could feel that the bond between them and their fathers in the profession was more like that existing between the natural parent and child, their pathway would be rendered much smoother, and their courage, often faltering, would be greatly increased and confirmed.

These jealousies, so common among medical men, always weaken the influence of the profession wherever they exist and in proportion to their extent. In the first place, public confidence must be greatly shaken as to our claims that our science is based upon philosophical principles. With many of the most intelligent portion of the community we stand no better at this moment than the veriest empiric in our midst. We are often met with the intimation that, while all professing to be guided by the same general principles, no two of us can agree upon any matter affecting medical diagnosis and treatment. Dr. A——, who has received his medical education altogether, or in part, in the old world, is inclined to look disparagingly upon Dr. B——, no matter what his abilities, because he has not gone beyond the limits of his own native land to acquire his medical knowledge. He seems to act as if not only professional knowledge was to be acquired, but that any deficiency in brains that may perchance exist can also be made up by a trip to the Old Country and the addition of three or four significant letters to his name. Now, we do not desire to be understood as uttering one word depreciatory of the very great advantages at which young men of ability and industry are placed in the beginning of their career by enjoying the privilege of visiting the Old Country, attending one of the large hospitals, and coming in contact with the great minds of the age, as well as receiving their instructions. Such a privilege as this is confessedly most desirable in more ways than one; and he who is earnestly desirous of adding to his stock of information and of acquiring greater precision in any department of his profession, cannot, perhaps, attain his object more effectually in any other way than by visiting a large city like London or some of the large cities of the continent. But the experience of the past has confirmed us in this conviction, that if a man has ability, physical energy, and a determination to rise in his profession, he need not go beyond the limits of his own country. The almost unlimited and ever-increasing facilities placed at our disposal by the press of the present day, give us advantages not enjoyed by the profession in former times. So that now there is nothing new in the profession under the sun of which the industrious student may not possess himself almost as quickly and effectually as if he was on the very spot where the novel principle has been evolved or practice adopted. The time has passed when, in order to become acquainted with the views of the leading minds of the age in any country or upon any subject, it is absolutely necessary that we should see and hear them for ourselves. Surely no one will pretend to say that, apart from the gratification of seeing and hearing a man like Sir James Paget, the earnest student will be any better informed regarding the views of that eminent surgeon than he would be by reading his published works and carefully digesting them. So we might with equal propriety speak of every man of any considerable distinction. Not a solitary man of prominence in the profession in any of its departments has failed to present through the press his views upon his favourite subject in the most matured and carefully prepared form. So that often what men of distinction have written is much more to be relied on as the correct expression of their views than what they may have said at a hospital clinic. It is an unjust principle upon which to judge of professional attainments to

inquire where a man has been educated; because he may not have gone beyond the limits of the city of Toronto, and be vastly more intelligent and better informed in every branch of his profession, than his neighbour who has travelled round the world and has an appendage to his name almost equal to the letters of the alphabet. We don't hesitate to characterize the man who shows a disposition to taboo his neighbour for no better reason than that he had not been *abroad* to obtain his medical education, as exhibiting a degree of narrow-minded snobbishness unworthy of a gen leman belonging to a profession so grand and philanthropic in its purposes as ours.

It would be very much the safer rule to follow to judge men, not so much upon the place and manner in which they have received their professional training, as upon the acquaintance they exhibit of their profession, and the earnestness and devotion with which they apply themselves to every expedient which can in any way render them effective in practical life.

Professional jealousies are, in many instances, proving destructive to the influence which professional men ought to have upon each other. It is a subject of deep regret that, in a city like Toronto, there is no properly organized society of medical men, where they can meet together from time to time for an interchange of views upon any of the important matters relating to the profession. Our profession is confessedly progressive in its character and aims. It is almost startling to anyone who reads at all extensively and profitably, to observe the rapid strides that are being made in throwing light upon many points that were once obscure and in improving upon points of practice that formerly obtained. Association with each other in a friendly way, it will not be denied, tends to personal improvement among men of almost any class, but more particularily among those devoted to any branch of science. Well, we are not saying more than we have a right to say when we claim for the members of the medical profession in this city an amount of intelligence and thorough acquaintance with their work, as well as success in the treatment of disease, not excelled by their brethren anywhere else. We can refer with honest pride to the success achieved by many amongst us in the various departments of the profession. But we are pained to think that rival interests and personal infidelity to each other are so dividing us that all the useful information which necessarily would result from the attrition of mind with mind is constantly being lost, particularly to the younger members of the profession. We claim that ours ought to be preeminently an unselfish profession, and that we ought to be willing, by mutual sympathy and aid, to contribute of our everyday experience anything that would prove helpful in rendering our labours more efficient to suffering humanity. This can only be effectually done by regular meetings together and the presentation of anything striking in our individual experience. In the past, all efforts at keeping alive and in vigorous operation a medical society have proved abortive; and we have reason to believe that our failures can be traced to but one cause.—We have become gradually estranged from each other by the personal jealousies arising out of rival interests and the growing disposition to build ourselves up individually upon the ruins of our neighbours. Doubtless, much of this feeling of distrust that now exists would be largely obviated by more frequent and general contact, such as would be secured by general association; and many members of the profession, now apparently obnoxious to each other, would become most valued friends. We have no doubt that, if many of us would only seek a more intimate acquaintance, many seeming incompatibilities would be entirely removed, and a harmony would exist amongst us most desirable for our personal enjoyment, and eminently conducive to our advancement professionally. Let us forget our past differences, and seek, by every lawful means, to break down those barriers to our mutual profit which have too long torn us asunder, and rendered us more like armies arrayed in conflict the one against the other than the compact, sympathizing brotherhood which we ought to be.

MIDLAND AND YORK.

Is it not time that a Medical Association should be formed for the Territorial Division of Midland and York? The medical men resident in this division must feel that Medical Societies or Associations are neither necessary nor beneficial, or else, owing to inertia and indifference, no one has hitherto taken action in a matter which we think somewhat important. Many territorial divisions in Canada, many towns and counties in the United States, have Medical Societies, whose proceedings are a credit to their members and a benefit to all who take part in them. That the medical profession of Midland and York, strong as it is in numbers and talent, should be behindhand in this matter, is certainly an anomaly that should at once cease to exist. True it is that in Toronto there are resident a larger number of physicians, from which almost a Society might be formed, than many places having iive Medical Societies possess; but, for some reason or other, a Toronto Medical Society has not been successfully worked. We think that a larger and more representative Association, where all personal jealousies and ill-feeling, all sectional and

school differences might be sunk, could, and should, be organised and worked. Every member of the College of Physicians and Surgeons has a duty to perform; every physician has an interest in the proceedings of the council of that body of which he is a member.

How better can constituents fortify their representative with their views on medical legislation than by a careful discussion of their opinions and his actions in meeting assembled? How better can a representative explain or defend his words or his votes in the council than when brought face to face with the constituents who sent him there? No one is too old to learn; no one lives or practises long enough to meet with every phase of disease. Everyone has some opportunity for observation and deduction, and the imparting of knowledge or information is mutually beneficial. To meet together in a friendly spirit; to discuss one's doubts and difficulties, one's opinions and experience, with those of others who are working for the same end, cannot but result in some pleasure and profit to all, and if not essential, is, at any rate, a subject of sufficient importance to be urged upon the medical men resident in the Division of Midland and York. We would suggest that our representative should call a preliminary meeting to decide upon the best means of accomplishing this object. The details could be gone into at a larger meeting afterwards.

THE ONTARIO MEDICAL ACT.

The Bill introduced by Mr. Wills to amend the Medical Act, so as to allow British graduates, and licentiates, &c., to register in Ontario without examination before the Board, was withdrawn. This is as it should be. Ample provision was made at the time the Act was last before the House, to enable the Council to grant a *quid pro quo* to British graduates, and as the only *quo* we have received so far, is an intimation from the Board of Trade in London to the agents of the Allan line of steamships that henceforth their steamships will not be allowed to clear the Custom House in England unless the surgeons on board are provided with diplomas from some college in England, Ireland or Scotland, we hope the Medical Council will have sufficient self-respect to continue to refuse to register any one that has not complied with the provisions of the Act. Sir Hugh Allan, in a letter to Dr. Campbell, of Montreal, states that he is not disposed to submit to the requirement of the Board of Trade, it being an injustice to the institutions of this country, and a slight to the Dominion itself. He furthermore states that having for twenty years carried Canadian surgeons as well as English ones on his vessels, he has found Canadian ones quite equal, both in professional acquirements and gentlemanly bearing, to those received from the colleges in England.

BOOKS AND PAMPHLETS RECEIVED.

The Functions of the Uvula and the Prominence formed by the Azygos Uvulæ Muscles. By Thos. F. Rumbold, M.D., St. Louis.

The Use of the Membrana Tympani as a Phonautograph and Logograph. By Clarence J. Blake, M.D., Boston.

The Transactions of the Medical Society of Virginia for 1876. These transactions have been bound with the January number of the *Virginia Medical Monthly*, edited by Dr. Landon B. Edwards, of Richmond. They contain, besides addresses by the President, Dr. Cunningham, and Dr. McDonald, able papers by the Chairmen of eight committees drafted to report on the advances made in the various branches of medicine. A paper on "Aspiration," by Dr. Hooper, and the proceedings of the annual meeting complete a volume that is highly creditable to the medical men of Virginia, who show zeal and co-operation worthy of our imitation.

Canadians in London.—The following gentlemen have passed the primary Examination for Membership of the Royal College of Surgeons of England:—F. R. Eccles, M.D., Duncan Fraser, M.B., A. H. Wright, B.A., M.B., and John Wishart, M.B. Herbert Stanley Stone, M.B., New Brunswick; William T. Ward, M.D., of Stanhope; John Kirkpatrick, M.D., Toronto, have been admitted Members of the Royal College of Surgeons, England.

Personal.—We are glad to see that Dr. Rosebrugh has resumed his professional duties, after a rest of four or five months, spent in New York, Philadelphia, and Boston. We hope that the benefit which has resulted to his health will be permanent.

Communications.

To the Editor of the CANADIAN JOURNAL OF MEDICAL SCIENCE.

A SIMPLE ASPIRATOR.

BY A. GROVES, M.D.,
Fergus, Ontario.

Having noticed in the last number of the CANADIAN JOURNAL OF MEDICAL SCIENCE an article from the London *Lancet* on a "New Aspirator," I thought it might be of interest to your readers to describe an instrument which I devised about a year ago, and have used several times since. I had, first, a tubular needle made by a watchmaker out of the largest sized tubing commonly used for making hinges for watch cases; then I took an ordinary elastic enema syringe, and broke off the expanded part at the extremity of the suction tube, over which one end of a piece of rubber tubing, eighteen or twenty inches long, was slipped and secured by a thread tied tightly around it; the other end of the tubing was slipped over the needle and secured in a similar manner. The tubing used was that sold by druggists for nursing bottles, and answers perfectly. The whole cost, in addition to the syringe, is not over one dollar. My method of using the instrument is, first, to place the delivery tube under water, so as to prevent the possibility of air passing into the cavity; then an assistant compresses the bulb of the syringe; an incision is now made through the skin, and the needle plunged into the cavity to be aspirated. Alternate relaxation and compression of the bulb will now be carried on until all the fluid is removed, or from some cause it is deemed proper to stop the operation. I always compress the suction tube with the fingers during compression of the bulb, and the delivery tube during its relaxation, lest the valves should not work perfectly.

By removing the valves, injection of the cavity can be carried on. With this instrument I have withdrawn sixty-six ounces of fluid at a single operation from the pleural cavity, affording immediate relief, which was soon followed by perfect recovery. Indeed, in every case in which I have performed aspiration of the chest with this instrument, recovery has been rapid and complete. The chief advantages I claim for it are:—

Its Cheapness.
Its Simplicity.
Its Durability.
Its Efficiency.

Its Portability—the needle and piece of tubing can be carried in the vest pocket.

Its Safety—there is no danger of rupturing delicate structures by too much suction power.

There is one point in the using of aspirators, particularly in the pleural and pericardial cavities, which is too much neglected, but which it is most essential should be impressed upon operators. It is, that the needle should not be kept projecting perpendicularly into the cavity, ready to pierce the expanding lung or the ever-beating heart. Keep the needle lying against the side of the cavity.

I have lately devised a needle, by the use of which the danger of piercing internal structures will be obviated, and of which I shall, perhaps, at some future time, send you a description.

Miscellaneous.

Sir William Fergusson died on Feb. 11th.

DR. W. S. PLAYFAIR aided the Duchess of Edinburgh in her late performance of domestic duties at Malta.—*Phil. Med. Times.*

A "lymph" famine prevails in England in consequence of the large number of persons desiring to be re-vaccinated.

At a meeting of the Ottawa Chirurgical Society, the following officers were elected:—John Sweetland, M.D., President; Henry P. Wright, M.D., Vice-President; A. Horsey, M.R.C.S., second do.; A. Henderson, M.D. Sec.-Treasurer.

THE DOCTOR.—There is a kind of freemasonry between the doctors and the women that we and they understand, and with which outside barbarians have nothing to do. Nobody loves the doctor like the women, and I am happy to say this regard is most cordially reciprocated. A few of them (I mean the women), however, have a most insatiable ambition to be doctors without being graduates—that is, some of them are

very much inclined to be quacks. And very officious, persistent, meddlesome quacks they make, seeming to think that they know more than the whole medical faculty combined; in a word, that they know it all, or if by chance there is anything they don't know, it is not worth knowing. But taken as a class, the women are the best friends the doctors have; indeed, they are indispensable to us: we can't do without them, and, deprived of them, I verily believe the entire medical fraternity would break down before the next centennial, or, at least, become very infirm and decrepid. As nurses, some women are perfectly charming, and a slight attack of sickness is sometimes absolutely refreshing, if not luxurious, when nursed and cared for by some of them.

> "O woman, in our hours of ease,
> Uncertain, coy, and hard to please,
> And varying as the shade
> By the light, quivering aspen made!
> When pain and anguish wring the brow,
> A ministering angel thou!"

A good nurse is, like the poet, *nascitur, non fit*. As a class, women seem to have a great talent for nursing and caring for the sick; hence the ambition or desire some of them are manifesting to become doctors. Well, if they are willing to bear the wear and tear, the toil and labour, the mortification and responsibility that attach to the physician's life, in God's name let them try. That female labour has been too restricted and too unremunerative, is beyond question. That many have been and are continually driven to destruction and ruin by the want of compensating employment, may be demonstrated beyond a doubt all over the country, but especially in the large cities. So far as I am concerned, I extend to them the right hand of fellowship, and it seems to me that if I was just a little sick I would prefer one as my doctor; indeed, I am not sure but that I would like one as a partner, especially if she was interesting and good looking. As a class, they are true to us, and "anathema maranatha" be to him who is not true to them.—*Dr. McDonald's Address*, in *Virginia Medical Monthly*.

Births, Marriages, and Deaths.

BIRTHS.

At Whitby, on Sunday, 18th Feb., the wife of Dr. Bogart, of a son.

At Campbellford, on the 22nd inst., the wife of R. J. Ough, M.D., of a son.

On Janary 31st, 1877, at the Hermitage, Richmond Hill, the wife of L. H. Evans, Esq., M.D., Toronto, of a daughter.

At Thornton, County Simcoe, on the 29th January, the wife of John Madill, M.D., of twin daughters.

MARRIED.

On Monday, Feb. 19th, by Rev. J. G. Laird, Dr. Sylvester, of Galt, to Lottie, youngest daughter of the late R. Reed, Esq., Bowmanville.

On the 21st Feb., by the Rev. John Gilchrist, Frank J. Patten, M.D., to Miss Annie E. Mainwaring, youngest daughter of H. Mainwaring, Esq., all of St. George, county of Brant.

On the 21st inst., at the residence of the bride's father, Gloucester-street, by the Rev. W. Hay, Scotland, uncle of the bride, William Henry Miller, M.D., to Belle, daughter of A. T. McCord, Esq.

In Acton, on the 15th February, at the residence of the bride's father, by Rev. G. W. Calvert, assisted by Rev. D. B. Cameron, of Acton, and Rev. Thos. Lowrey, of Brantford, William H. Lowrey, Esq., M.D., to Miss Ann Jane, eldest daughter of Chas. Hill, Esq., all of Acton.

DIED.

On the 5th inst., at Port Ryerse, Dr. Henry Bogue, aged 52, formerly of Fifeshire, Scotland.

On Sunday afternoon, at the residence of Dr. Barrick, No. 97 Bond Street, Caroline Elizabeth, youngest daughter of Dr. William Newcombe, aged 13 years.

At 97 Bond Street, Toronto, on the 23rd inst., of inflammation of the brain, Beatrice Maud, daughter of Dr. E. J. Barrick, aged 3 years.

On January 25th, at his late residence, York-street, of congestion of the lungs, Robert Hornby, M.D., in his 68th year.

At York Mills, on the 13th inst., Ada Maud, only daughter of Dr. Armstrong, aged three years and eleven months.

"Horeb" Mineral & Medicinal Springs,
OF WAUKESHA, WISCONSIN.

THOMAS SPENCE, - - - - - MANAGER.

ANALYSIS BY PROF. GUSTAVUS BODE, OF MILWAUKEE.
A gallon, U. S. wine measure, contains:
Total quantity of soluble salts, 20·002 grains, consisting of

Chloride of Sodium	0·179 grains.
Sulphate of Soda	1·213 "
Bicarbonate of Lime	10·725 "
Bicarbonate of Magnesia	6·875 "
Aluminium	0·225 "
Silica	0·723 "
Iron	a trace.

Toronto General Hospital, Nov. 4, 1875

THOS. SPENCE, Esq., *Manager "Horeb" Mineral Springs*:

SIR,—I hereby certify that James Binnie was a patient in this institution in the months of February and March, in the year 1873. He was suffering from Diabetes of a most aggravated form, and was removed from here by his friends, as we and they supposed to die in a few days. To our surprise, in about four weeks afterwards, he was able to walk here to see some of the patients. I have no doubt but that your mineral water was the means of curing him. Yours truly,

J. H. McCOLLUM, M.D.,
Medical Superintendent.

Agent for Toronto—W. J. MITCHELL, 133 Yonge Street.

International Exhibition, Phila., 1876.

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New Preparations added continually. Samples and Price-Lists sent on application.

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☞ All Communications, Letters and Exchanges must be addressed to the Corresponding Editor.

TORONTO. APRIL, 1877.

Selections: Medicine.

ON MENTAL ANXIETY AS A CAUSE OF GRANULAR KIDNEY.

BY T. CLIFFORD ALLBUTT, M.A., M.D.,

Physician to the Infirmary, Leeds.

To the physician who desires, in the highest sense of the word, to be a practical man, a knowledge of the causes of disease is the most precious part of his craft, and may be more valuable to him, if possible, than a knowledge of technical therapeutics. And yet it is in this department of our science that we seem chiefly to lag behind. Much has been done, no doubt, in the discovery of the causation of infectious diseases; but our knowledge of the causation of the organic diseases of the human system is still far behind our knowledge of their pathological anatomy.

With these views, it has been my earnest desire, as a practitioner of medicine, to trace, as circumstances would allow, the causes of disease in those persons who have come under my own eye. For this end, I have taken more or less careful notes of almost every case which has come under my notice at my consulting-rooms for some years past; and these records have led me to many important conclusions, and have incidentally taught me that no case, or but very few cases, can be regarded as trivial or meaningless; but that disorder, at the time slight enough, may often form very important links in the chain of the life history of the individual or of the family. Among the conclusions to which I have been led by the careful record of nearly one thousand new cases each year, I may refer to the following, which I have published already or which are almost fit for publication.

First of all, I have convinced myself that affections of the skin form most important links in several series, and that many of them enter curiously into the history of hereditary neuroses, as well, of course, as into the gouty and other series; also that, as herpes occurs at the various mucous outlets, so eczema occurs in the bronchial mucous membrane, psoriasis in the tongue and colon, and so forth; that, in fact, skin-diseases are not always placed on the outer skin alone.

Secondly, my notes seem to prove that acute phthisis is, very often at any rate, a neurosis.

Thirdly, that migraine, among many other curious affinities so admirably worked out by Dr. Liveing, is associated with aphasia and right-sided palsies.

Fourthly, that rheumatic fever tends to concur with gout in some persons or families, and with phthisis in others.

To-day, however, I have more especially to urge upon you a proposition, the truth of which has been asserting itself in my own mind for some years; namely, that among the causes of that kind of Bright's disease known as granular kidney, mental anxiety and prolonged distress take a high, if not the chief, place. A middle-aged person, man or woman, will come to us complaining that he is no longer active and eager for work, but is unaccountably languid and heavy; that he has of late become liable to dyspnœa; and that, especially after mental anxiety, attacks of this dyspnœa may come on even during hours of repose. The physician will then find the flesh falling and the complexion fading, the pulse growing tense

and the heart enlarging; the urine varying widely in quantity, of low gravity, and often slightly albuminous. Now, if he inquire into the preceding history of such a patient, he will very commonly find that carking care or bitter and long sorrow has set its mark upon his life. It is impossible to prove this statement by the reading of cases; my statement is one which must be tested by others, and must stand or fall by the general voice. But I may say that I am even myself surprised to find how fully my belief is borne out by the comparison of my own cases. During the last two years I find I have made notes of thirty-five cases of granular kidney occurring in private practice, and I find a marked history of mental distress or care, or both, in twenty-four of them. As a result of such causes, indeed, I find that granular kidney follows more frequently than degeneration of the brain or spinal cord, and far more frequently than primary failure of the heart's muscle. Not as proofs, then, but as illustrations, I may read brief notes of some few of those cases which I find recorded during the last two years, and which resulted probably from the causes I have indicated.

Case I.—A lady, aged at death about fifty-two, was brought to penury by her husband, who then deserted her. She was reduced to keeping a small shop in Hull; and, while there, her son deceived, deserted, and, I believe, robbed her. She gradually became sallow, wan, listless; the pulse became more and more tense, the urine lost its quality of health, and she died of uræmia.

Case II.—A gentleman, whom I had known for some years as a person of position and means, came to me with symptoms of granular kidney. His age was about fifty-one. I did not think it likely that care had eaten into his life. His wife, however, told me that, about eight years ago, he had almost accidentally invested a trifle of money in a trading company. This company failed miserably, and dragged hundreds of families to the dust. My patient, who had invested about two hundred pounds, ultimately lost about five thousand. Now, to have lost five thousand pounds at a stroke might have affected him little, but, for three or four years, he went to bed night by night ignorant whether he might not be gradually drained of his all. And to this were added the care and pains exacted of him in the position which he accepted of trustee in the liquidation: a tedious, thankless, and distressing post. His health during this time slowly fell off, and, by the time he had well extricated himself from his anxieties, he had entered into the long lane of chronic interstitial nephritis.

Case III.—A gentleman, whom I am now attending for advanced granular kidney and uræmia, came to me, four or five years ago, complaining of symptoms which I then referred to overwork. He was living in good style, at the head of a large business, and I urged him strongly to take rest and change. I thought him a little obstinate in declining to do this, and I saw nothing of him till a few months ago, when, as I have said, he was hopelessly ill. I then found that his prosperity had been but apparent. The senior partners in the firm had died or retired, taking capital with them, his son disappointed him, and my patient, a man of great industry and probity, was left to fight single-handed an unequal battle. For years he had striven stoutly, and, so long as trade was vigorous, he kept misfortune at bay; with the slackening of trade, however, came the pitiless end—bankruptcy and beggary had sat beside him for years, and now entered in and took possession. A fine man, of healthy family and apparently sound constitution, his life was thus gradually eaten away. [This patient is since dead.]

Case IV.—This is the story of a wealthy and happy man, born to a high place and to a free and beautiful life. All his hopes were bound up in one child, and this one was all in all to him, until by degrees the idol was broken in pieces; and, with the desertion of his child, the father's face grew wan and sallow; in middle-life his heart thickened, his urine paled, and, after two years of this, he fell in an apoplectic fit and spoke no more.

Case V.—This is not unlike the preceding. A mother brings up four sons, who inherit an honourable and famous name and great estates. She nurses the estates, pays off incumbrances by industry and thrift, and yet one by one her hopes are stricken down. Her eldest son

passes away from her into something worse than death, and the rest are lost to her in various ways which I refrain from indicating, lest I should point too nearly to the identity of my patient. She slowly passed, at about fifty years of age, into chronic Bright's disease and died of uræmia.

Case VI.—This is again a sad story of a suffering wife and mother. Happy in her husband and family for many years, she awoke one morning to find her husband a helpless idiot. For years, she gave up her life to him and to her son, his heir. The father died after six years of a life worse than death, and the son is now gambling away his patrimony under her eyes. Before sixty years of age, she shrinks and fails, and people wonder what ails her. Now I find her urine albuminous, her heart thickened, her kidneys dwindling, and her days numbered.

Case VII.—A fine vigorous man, living the life of a sportsman, hunting four days a week, shooting, fishing, and giving every evidence of splendid health and endurance, married, rather late in life, a lady to whom he was deeply attached. Two years later, she died in her first confinement. Months pass by, and people look sadly at him and say to each other that he has never recovered that shock. More months go by, and his falling flesh, sallow face, and tense pulse suggest albumen, and it is found. Everything that money can do has been done; but he remains the subject of chronic interstitial nephritis, and the outcome of it is, I fear, too sure.

Case VIII. is a commercial traveller, energetic and fairly temperate in habits, but whose family have embittered his existence. After several years of wretchedness and disappointment, he called upon me, and I found decided evidence of granular kidney, with arterial tension. I do not know whether he is still living.

Need I multiply such cases as these, monotonous in their sad procession? I must pass on to consider very briefly those cases in which mental distress was not an obvious factor in the causation of this morbid state. In the preceding histories, I have referred only to cases in which the sufferers were more agitated by depressing passions than the average of δειλοι βροτοι. But although I think that, in the majority of cases of granular kidney, the cause I have indicated will be found present in the higher measure, yet, in many other cases, we find no marked evidence of such causation. For instance, of the remaining eleven of my thirty-five cases, three seemed to owe their disease to intemperance. In these, the disease was discovered somewhat early in life, that is, at about forty years of age, and, besides the decided history of intemperance in each, I could find no obvious cause. In no one of these had gout appeared; and I may add here that, in no one of the cases I have taken as resulting from depressing passions was intemperance present. On the contrary, many of these cases were persons of singularly abstemious habits. Again, in no one of my thirty-five cases have I distinctly found gout as a primary cause. Gout I believe to be one of the first consequences of dwindling of the kidney; but, when I look back upon the number of men and women who have striven with gout from early years, I am surprised to find how few of them end in Bright's disease. I have been especially struck by three cases I have carefully noted of late, in which I found a high pulse-tension, together with evidence of marked gout, in persons who have thus suffered for years, but whose urine gave no indications of granular kidney. Many such persons have thickened and embarrassed hearts, and die ultimately with cardiac symptoms, but with urine throughout of normal specific gravity, and containing no albumen. Three more of my thirty-five cases occurred in young persons of the ages of eighteen, twenty, and twenty-five respectively. In these, the renal and arterial changes were well marked, and, as in early diabetes, the course of the disease was far more rapid than in older patients. In cases of granular kidney in early life, I have always found a bad family history; more especially marked in the other members by sallowness of skin, headache, dyspepsia, want of muscular power and energy, imperfect nutrition, and phthisical tendencies. The rest of my cases afford no features of special interest; in two, pregnancy was the cause; in another, chronic disease of the urinary passages; and in the remainder, the disease appeared in advancing

life without definite cause. Concerning the connection of depressing passions with granulation of the kidney, I offer no opinion. As many of these cases pass urine profusely in the earlier stages, I was led at one time to think that we had evidence in this of some irritation from the base of the brain affecting first the vascularity of the kidney, as in diabetes insipidus. Diabetes insipidus, however, does not end in granular kidney, and the copula remains, I believe, yet to be made out.

Finally, if you accept my proposition that prolonged mental distress is one of the chief, if not the chief, cause of granular kidney, how are we to turn this knowledge to use in our profession? Can we, by a word, bid the sparks not to fly upward? We cannot; but we may profitably regard the matter as thus divisible. These depressing passions may be divided into three classes: Class 1. Antisocial passions; Class 2. Social passions; Class 3. Fretfulness. With respect to this third class, much may be done in impressing upon all persons (and the younger they are the more useful is the lesson) that to fume and fret, to brood and worry, is to waste power at the time and to waste the frame thereafter. No man or woman ever decided the more wisely from lying a night awake in agitating doubt. The torment of self-questioning and of apprehension of events which rarely come as we imagine them, is a loss every way, whether the object of anxiety be selfish or unselfish. A maiden lady, one of the noblest and most unselfish women I ever met (whose case is not included above), has worn her kidneys granular by years of fretting over the trials and interests of others. Temperaments differ, but I feel sure that in all a calm wise habit of mind may, by practice, be more or less successfully reached; and all persons should have it clearly impressed upon them that a man, who sees he can only do his best, and who quietly awaits the right moment for action, acts when the time of action comes far more effectively than his neighbour who has fretted himself into a fever. No man ever saw his way through a difficulty more clearly for tossing it over in his mind by night and by day.

> "Æquam memento rebus in arduis
> Servare mentem."

In the next place, concerning antisocial passions; these passions are all which concern self exclusively or primarily; and the grosser kinds of them are greed of gain, pride of place, and lustful desires. The men or women who cherish these, and who find, as they must find sooner or later, that the fruits of them turn to ashes in their mouths; that ambition, avarice, petty tyranny and selfish indulgence have no continuing joy in them, but rather work out destruction, will find at the same time that they have laid the seeds of bodily disease, which the nineteenth century, with its gilded crown, has no royal touch to cure. Perhaps, in our time, the fear of granular kidney is to preach a more powerful evangel than even the Church; for life seems to consist in the reduction of our ideals. But what are we to say to those who are falling or to fall in a true fight, whose life is expended in a noble despair, who have tempered fretfulness with wisdom and resignation, and whose passions are purified? Simply this: that we are born to war and not to peace; but we must see that we spend ourselves to some good purpose. A generous ardour is no safeguard against errors of aim; and we find that men and women often die rather like the bird which beats its wings against the cage, than by the defeat of well-directed effort. Many of us must fight, knowing that victory is impossible; and in constant strife there can be no joy or fruition; still, in a good cause, no wise effort can be wholly in vain, and the consciousness of this is a healing salve more powerful than any we can give. We shall be but blind physicians if we preach cowardice or inaction as the secret of health; let us rather urge upon those who seek our help in times of trial, to fix their affections on no selfish, unworthy, or transitory desires; to spend themselves, if their lives must be prematurely spent, in the cause of others, and for ends which are not visionary but attainable; and, finally, to possess their souls in patience and steadfastness. I know, in many cases, you may as well bid the wind cease to whistle; but, in others, by economising effort, by purifying suffering, and by lessening defeat you may not only keep reason on its throne, but you may save the body from the inroads of organic disease, and from that disease more particularly on which to-day I have ventured to address you.—*Brit. Med. J'l.*

CASE OF DIABETES INSIPIDUS CURED BY ERGOT—ACUTE MENINGITIS IN THE COURSE OF A CHRONIC DISEASE.

BY J. M. DACOSTA.

This patient presents points of more than usual interest, both as regards diagnosis and treatment. I will read his history :—A. F——, thirty-three years of age, a miner, a native of Pennsylvania; is married, and has never been intemperate. He never had rheumatism, nor syphilis, and, with the exception of an attack of intermittent fever, thirteen years ago, he was well until 1874. At this time he experienced severe pain in the right side of his face and head, coming on without any known cause. This returned at intervals, and finally became very severe, the greatest pain being localized over the right ear. He never had vomiting nor vertigo with these attacks, but had severe pain in his eyes, and one year ago lost vision completely in his right eye after dimness, lasting forty-eight hours. He has some irritability of temper since this began, and his memory is impaired.

His eyes have been examined by a skilled ophthalmologist, Dr. William F. Norris, who makes the following report :—"Blue atrophy of both optic nerves was found, which was com plete in the right eye. The central arteries were but little changed in calibre, but there is total absence of any signs of capillary circulation in the right disc, and in the retinal fibres in the neighbourhood of the macula, there are a few small, whitish-yellow patches, fusiform in shape. The right eye is blind, and the vision in the left is partially defective, but he can see to read good type."

But there is another point in the case by no means unimportant. The notes state that upon admission "he complains of constant thirst; his skin is dry, and he passes a large quantity of limpid urine, of low specific gravity, 1·003, and containing no albumen or sugar. He was passing eighteen pints of urine in twenty-four hours, when he was ordered fluid extract of ergot, one drachm thrice daily, with the effect of diminishing the amount to fifteen pints the succeeding day. This treatment was ordered before I came on duty, by my colleague, Dr. Jno. F. Meigs. On the sixth day the ergot was increased to two drachms, given thrice daily, with the effect of relieving the headache to a considerable extent, and of reducing the urine in the next fortnight to four and a-half pints daily.

The ergot was discontinued when the urine had decreased to two pints daily. Twelve days later the head symptoms increased, and finally became the leading feature in the case, in spite of full doses of bromide of potassium and deodorized tincture of opium. The case came into my hands at this time, and I regarded it as an acute exacerbation of some old trouble, probably meningitis of the base of the brain. The former treatment was suspended in favour of iodide of potassium, ten grains three times a day, with a small amount of stimulant, a blister to the back of the neck, and the bowels ordered to be kept freely open. Notwithstanding the fact that the patient was delirious, requiring him to be strapped in bed for days, the tongue dry and coated, the skin harsh, I have an extremely satisfactory therapeutic result to report. Under the large doses of iodide the cloud lifted. He has now no delirium nor fever, and the headache is almost entirely gone. That this improvement was due to the remedy employed, I have not the slightest doubt.

But what has become of the diabetes? After the ergot was suspended, under the administration of the iodide the urine ran up to four pints daily, at which point it still remains, but as he is still using this potassic salt, this is a natural result, as it has been before noticed that iodide of potassium has a decided diuretic influence.

Polyuria, or diabetes insipidus, consists in an enormous flow of limpid urine, containing neither albumen nor sugar, nor any abnormal ingredient ascertainable by the chemist. All the normal constituents are present in the usual quantity, but very much diluted. The amount of water is much larger than in true, or saccharine, diabetes.

This is sometimes the symptom of a depraved nervous system. In hysterical females, a large flow of limpid urine sometimes occurs temporarily. When it persists, it indicates a lesion more permanent; it suggests a central nervous

lesion, and is sometimes associated with organic disease of the brain. Tumours of the brain, especially those in the neighbourhood of the fourth ventricle, may have this symptom. In all cases you should seek for the possible nervous disorder underlying the polyuria. There is no doubt here, from the pain, the blindness, the ophthalmoscopic report, that the real lesion is in the cranium; the case is one of central trouble, the diabetes being but one of the symptoms.

Now, let me point out the extraordinary result of treatment in this case. He is, practically, well of the diabetes; when we stop the iodide the four pints of urine will, doubtless, fall to the normal quantity. He is strong, active, and well, apparently, and when he recovers from his brain trouble he will have no polyuria.

I first used ergot in diabetes insipidus two years ago, in this hospital, with complete success; the case afterward was admitted to the surgical ward with a broken leg, but his polyuria has not returned. This case I reported to the Pathological Society. In ergot, freely used, we have one of the most active agents in controlling this symptom, which, as I have before stated, is generally linked to disease of the nervous system. Everything has been tried in the treatment of diabetes insipidus, and, I may say, on the strength of three cases, that ergot shows a power in this respect that nothing else does, although, like other remedies, it may fail in some cases.

Now for the point of ergot causing the meningeal exacerbation. This is easily disposed of. The signs of meningitis came on twelve days after the ergot had been stopped, and were accompanied by a distinct rise in temperature. Such exacerbations are quite common in meningitis, and I think this is sufficiently explained by the previous attack; the ergot could not have caused it.

As to the evidence of meningitis. Violent delirium, with hallucinations, is one of the most certain diagnostic signs of meningitis affecting the base or convexity of the hemispheres. Another point is the admirable result from iodide of potassium, which is important evidence as to the nature of the disease. This case proves what has been doubted, that acute meningitis may come on in the course of chronic disorders, without a blow or evident exciting cause.

The diagnosis between chronic meningitis with thickening, and a small tumour, is sometimes difficult, if not impossible. The absence of headache, vomiting, and convulsions would favour the idea of a tumour, but, in truth, a small tumour, and meningeal thickening with exudation, do not furnish points of differential diagnosis, and are practicelly very much the same thing; the meningeal disease and deposit really constitute a flattened tumour, and may give rise to symptoms from pressure on the brain.

There is sufficient reason for continuing the exhibition of the iodide of potassium, and of applying counter-irritants to the back of the neck.

[The patient remained under observation two weeks longer, when, being improved in every respect, he was discharged at his own request, in order to return to work. The urine was still about sixty ounces, but he continued taking the iodide of potassium up to the day he left the ward.]—*Phil. Med. and Surg. Reporter.*

Cirrhosis of Liver in a Boy Aged 14.—At a meeting of the Pathological Society of Dublin, on January 13th, the President showed the viscera of a boy, aged 14, who had general dropsy with marked ascites. Passive pleural effusion occurred, and necessitated thoracentesis. On repeating the operation, the fluid was purulent. After death, the right lung appeared compressed and carnified; the pleura was thickened. The pericardium was firmly adherent to the anterior surface of the heart, which was small. A calcareous plate existed in the pericardium, and passed into the substance of the heart itself. The liver was nodulated; its connective tissue was increased; its cells fatty. The kidneys were granular. The urine had been frequently tested and found free from albumen, of moderate specific gravity, and excessive in quantity. The atrophy of the heart, in the presence of an adherent pericardium, was, doubtless, due to the long-continued cachectic state of the boy's system.—*Brit. Med. Jour.*

NOTES ON DISEASES OF CHILDREN.

BY F. FORCHHEIMER, M.D.

Hardly does a winter pass by without its epidemic of whooping cough—in the medical journals. This year we have had our share—etiology, symptoms and treatment, all have been referred to in one way or another. In the way of symptoms, some remarkable things have been described. The ulcer of the frenulum linguæ has again been discovered. This ulcer, which, by the way, occurs in the majority of cases of pertussis, was first noticed in 1840, in Germany; there it was not forgotten, as will be seen by referring to any of the German text-books. Trousseau describes it in 1866, but claims no credit for originality. A few years ago it was described by Gambarini, in Milan, and this year an English physician, Thomas Morton, M.D., claims priority for discovery in the year 1876. It is surprising that this lesion should not have been described before 1840, for, if any one only takes the trouble to examine his cases carefully, he will have no difficulty in seeing the ulcer, either on one or both sides of the frenulum. How much more, then, must we be astonished when we find a gentleman member of a learned society stating something as new, which has probably existed since the time of Hippocrates. The etiology of whooping-cough has been investigated by numerous workers. Since Letzerich wrote his papor (Virchow's Archiv V. xlix, 1870), many have arisen—few for the probability of the fungoid origin of the disease, many against it. The last that has appeared on this subject is by Dr. A. Tschamer (Jahrbuch für Kinderheilkundè, August 15, 1876). No explanation is so satisfactory as that which can be demonstrated by actual experiment—when the miscroscope, clinical experiment and pathological anatomy go together, proving a point, provided the individual observing has all the essentials for a scientist, this point may be considered as settled. Tschamer first states that in every case of pertussis he has examined, he has found mycelium and spores of a fungus. He at the same time calls attention to their microscopic appearance in the sputa; and if these statements are true, we will have a valuable addition to the symptomatology of pertussis. He says that one or two days before the spasmodic stage sets in, he has always been able to detect in the sputum, bodies as large as a pin point, of a white colour, and also others, much larger, of a yellowish colour, that sink to the bottom of the vessel in which the sputum is kept. Upon examination with the microscope, these are found to consist of epithelial cells and the fungus.

The question to be decided is, whether this fungus produces the disease, or whether there is something in the sputa besides this, capable of causing pertussis. Tschamer has taken the fungus and cultivated it by putting it on a soil suitable for that purpose (boiled potatoes, etc.), and from this has produced pertussis. This, however, does not prove that the fungus caused the trouble; the specific poison, whatever it may be, has perhaps continued to live with the fungus. But the experiment, which, if true, is conclusive, is as follows: In studying fungoid growths, Tschamer had seen the fungus found by him in pertussis, in other localities. He had seen it from the skin of oranges, where it had appeared in the form of brownish-black spots. He takes one of these masses, reduces it to a powder, inhales this, and in four days begins to feel the effects. On the eighth day he has genuine spasmodic whooping-cough, which lasts for ten days. He makes the same experiment on a labourer who is hired for the purpose, and the labourer gets whooping-cough.

The fungus is not only found on oranges, but also on lemons, potatoes, and apples. From these experiments, Tschamer comes to the conclusion, which is undoubtedly the correct one if he has made no errors in his experiments, that pertussis is caused by a fungus that is found on many varieties of fruit. Treatment sustains these views. Quinia, when properly used, is capable of cutting short nearly any case of pertussis, especially if it be taken in hand early enough. I refer here to the method of giving quinia by insufflation. For this purpose a laryngeal insufflator is used, it matters not what kind—this is introduced, and three or four of the powders, the formula for which follows, are blown daily into the larynx, but especially

upon the epiglottis and surrounding mucous membrane :

℞ Quiniæ sulphatis, ℈j.
Sodii bicarbonat.
Pulv. acaciæ aa gr. xx.
M ut f't pulv. nro. x.

When this method is used as described, according to my experience, no cases withstand. Quinia internally is praised, and certainly does benefit a great many cases, but its efficacy when used in this way cannot be compared with its efficacy when used by insufflation.—*Clinic.*

Cavazzani on Camphorated Ether in Erysipelas.—Dr. Cavazzani gives the following formula in the *Gazetta Medica Italiana Provincie Venete :* ℞ camphor, fifteen grains ; tannin, fifteen grains ; ether, two drachms. This is painted every three hours, and sometimes oftener, over the affected parts. The author says that he has never seen this method fail, even in the most severe cases, in which ataxic and adynamic symptoms had already appeared. The fever soon diminishes, and the local erysipelatous process is arrested in two or three days. In some cases of phlegmonous erysipelas, which Dr. Cavazzani had under his care, this treatment arrested the progress of the disease. Trousseau prescribed this drug only in cases of circumumbilical erysipelas in new-born children, and Guibout did not use this solution in phlegmonous erysipelas, or in that affecting the face, fearing, in the latter case, that the meninges would become affected. In seeking an explanation of the action of the remedy, Dr. Cavazzani supposes that erysipelas is nothing else than a lymphatitis, and that the tannin exercises an astringent action on the cutaneous capillaries.—*The London Medical Journal*, November 15, 1876.

Treatment of Pityriasis Versicolor.—Mr. J. Ritchie finds the following treatment very efficacious. He recommends *(Edinburgh Med. Journal)* that the skin be washed with soap-and-water to free it from grease, and thereafter, that there be applied daily to the affected spots a lotion, consisting of equal parts of acetic acid and glycerine ; also, that the clothes worn next the skin be dipped in vinegar and water, in order to free them from any of the spores which might be lodging about them.

Surgery.

ABSTRACT OF A LECTURE ON THE QUESTION, WHEN IS THE CATHETER TO BE USED FOR HABITUAL RETENTION FROM HYPERTROPHIED PROSTATE ?

Delivered at University College Hospital, Dec., 1876.

BY SIR HENRY THOMPSON,

Surgeon Extraordinary to H.M. the King of the Belgians ; Emeritus Professor of Clinical Surgery in University College Hospital.

Reported by Mr. G. Buckston Brown.

There is a question which arises in the treatment of these cases which sometimes demands careful consideration. It is : "What are the circumstances which should determine us to commence habitual catheterism for a patient whose hypertrophied prostate prevents him from emptying the bladder by his own efforts ?" I reply that there are at least two principal facts relating to the local symptoms which must be noted in arriving at a judgment for any particular case. Firstly, we must know the amount of "residual urine" habitually present—that is, the quantity left behind in the bladder after the patient has passed all he can by his own efforts; and, secondly, we must observe the degree of frequency, by day and by night, with which he passes water, but especially during the latter period.

In reference to the first particular, the amount of "residual urine," you will, of course, not always judge from one trial of the catheter. Where there is nothing to disturb the function of micturition—and it is very easily disturbed, as by the presence of a stranger, or by the requirement to perform the act for purpose of experiment when a natural want is not present —the amount of urine left in the bladder is pretty uniform with most patients ; the conditions just referred to often temporarily impairing the expulsive power, and rendering, therefore, the residual portion on the occasion of examination rather larger than usual. This understood, let us suppose a case in which eight ounces always remains behind. That quantity suffices, in my opinion, to make it desirable that the patient should at once commence the daily use of the catheter. But you may find a much

smaller quantity; and you are entitled to ask me—indeed, I expect you to do so,—"What is the point in regard to quantity at which the line is to be drawn? When can I say, With this quantity a catheter is quite unnecessary; or, With such a quantity there is no doubt it must be used?" No answer can be given to such a question. The data from which to form a correct judgment are not contained within the terms of the proposition. Other facts are to be ascertained. I have heard it laid down, indeed, as an axiom, that so long as the urine is clear, no matter what the quantity retained, no instrument ought to be employed. A certain amount of *a priori* reasoning may be urged in behalf of such a rule, but it will not bear the test of large experience. The problem presented for solution in this, as in most other cases where surgical interference is imminent, is far too complex to be solved by one unvarying rule. Like the statement respecting quantity referred to above, the single fact that the urine is clear does not suffice to govern your decision. A large quantity of residual urine, much more than a pint, may exist, clear and acid in certain cases, but which, as we shall hereafter learn, ought certainly to be drawn off by catheter.

But let us see what this rule of never withdrawing the urine while it is clear means or involves. It means neither more nor less than waiting for the occurrence of chronic cystitis before we use an instrument! No other inference is possible. And why should we wait for chronic cystitis?—a condition which of all others it is highly desirable to avoid in an old and already incompetent bladder, leading, as such an affection naturally does, to thickening of tissues and loss of extensibility on the part of the organ. Is it not, on the contrary, the very condition we desire to avoid, and do mostly avoid, by commencing the use of the catheter at a sufficiently early period? Of course I know full well that in past days, when catheterism necessarily meant the use of the large metallic instrument, often painfully passed, to say the least, chronic cystitis was an ordinary and frequent result of catheterism. But it rarely is so now, with the soft and flexible instrument of moderate size, if only it is used at an early period in the case, and before considerable accumulation has taken place; the removal of a large quantity being mostly, I do not say invariably, followed by local and general disturbance. For it is not very common to find a patient whose residual urine has, from neglect of catheterism at an early period, reached the quantity of twenty ounces or more, who does not suffer somewhat severely from both chronic cystitis with purulent urine, and febrile attacks with resulting debility, whenever the daily use of the catheter has to be commenced. Furthermore, at this advanced stage of chronic retention, a slight accident of some kind readily occasions complete retention, or nearly so; and then it is no longer a question of using or not using the instrument, since the condition is now one which imperatively demands a catheter. In these last-named circumstances, chronic cystitis is almost sure to follow—an occurrence which most probably would not have happened had there been an earlier resort to the instrument. And so it happens, in the management of these cases of continued and chronic retention due to slowly advancing hypertrophy of the prostate, that the longer the use of the catheter is postponed after the early stage of the malady is passed, the worse will be the symptoms. And it happens also, unhappily, not seldom, that these serious symptoms following the use of the catheter bring undeserved discredit on the surgeon who first employs it—a discredit really attaching solely, and very gravely too, to the adviser who unwisely prevented an early resort to its aid. So that I beg you to understand that with a quantity of habitually retained urine amounting to eight or ten ounces, whether it be thick or clear, there is no question in a vast majority of cases that the time for the catheter, say, at least once, probably twice a day, has arrived.

But what other circumstance has also to be taken into account? A very important one—viz., the frequency with which the patient passes urine, and which differs greatly in different cases. It is much more to the purpose for your decision to note whether the patient is disturbed six times in the night or only twice, than whether his urine is clear or cloudy, or even whether the residual urine amounts to four ounces or to twelve. If you find him

affected by loss of rest—one of those things which sap the foundations of life in elderly men,—pass the catheter the last thing at night for him, and mark the result. If he obtains four or five hours of continuous sleep after the bladder has been emptied—a common occurrence,—you have reason enough for persevering, and he will learn to use the instrument himself every night, and will be exceedingly grateful to you for the relief he has obtained. So also the avoidance of pain and spasm by this treatment—a result which is often to be noted—makes it highly desirable, whether the quantity drawn off be small or large, transparent or clouded by mucus. Taking into consideration these different phenomena, which vary so largely in different constitutions, you will have no difficulty in arriving at a correct judgment for each individual case, provided you give to each sign or symptom its due importance, and do not rest your decision on any one, unless that one—in regard of quantity, for example—is sufficiently marked to leave no ground for doubt as to your course.—*London Lancet.*

DISLOCATIONS OF THE THIGH: THEIR MODE OF OCCURRENCE AS INDICATED BY EXPERIMENTS AND THE ANATOMY OF THE HIP-JOINT.

BY HENRY MORRIS, M.A., M.B.

1. The ilio-femoral ligament is a thickened triangular or fan-shaped area of the capsule of the hip-joint and not a Y-shaped ligament; besides the ilio-femoral band, there is a large portion of the capsule very thick and strong; and, if two lines be drawn, one from the tuber ischii to the top of the trochanter major, and the other from the anterior inferior iliac spine to the trochanter minor, all the capsule between them above is thick and strong, whereas all below and between is thin and weak. 2. The thickened portion of the capsule determines the kind of manipulation necessary for reduction, and should be relaxed by flexion and abduction during any attempt to reduce a dislocation of the thigh. 3. The degree of extension or flexion and of external or internal rotation of the thigh at the time of luxation determines whether the dislocation will be pubic, thyroid, sciatic, or dorsal; and subsequently the "bridling" effect of the thickened portion of the capsule fixes and gives character to the dislocation. 4. All dislocations of the thigh, uncomplicated with fracture, occur while the limb is abducted. 5. Posterior dislocations result when flexion and inward rotation accompany abduction; and the anterior when extension with outward rotation accompany abduction; while the downward or thyroid variety occurs during extension and abduction. 6. Of the movements of the usually successful methods of manipulation, the head of the femur is brought (by flexion, abduction, and reverse rotation) to the part of the capsule through which it was displaced, viz., to the lower and inner side of it. 7. The new position of the head of the femur in the sciatic, as in the dorsal dislocations, is above the obturator internus muscle, though in both varieties the bone leaves the acetabulum through a rent in the capsule below the muscle; and for these reasons the classification of the posterior dislocations into "dorsal above" and "dorsal below" the obturator internus, as made by Bigelow and followed by others, is misleading if not invariably incorrect. 8. Dislocation through a "button-hole" is not possible, owing to the inelasticity of the capsule and the large size of the head of the femur compared with the width of the capsule from pelvis to femur; and in the reputed cases of unsuccessful efforts at reduction of this sort of dislocation, the real obstacle has been either a portion of muscle or of the capsule itself carried before the head of the femur into the acetabulum, or of a fragment of the head of the femur left in the acetabulum. 9. The rim of the acetabulum of itself offers no real resistance to reduction. 10. In the exceptional case of a direct dorsal dislocation, the untorn muscles and capsule would resist reduction by ordinary manipulation; and this resistance would be appreciable by the surgeon. 11. Direct dorsal dislocations, or those which are said to occur during adduction, are always the result of immense violence, and are always associated with fracture of the acetabulum, or of the head of the bone or of both. 12. Violent pain in dislocations at the hip is caused by the sciatic nerve being pressed upon or looped up

by the femur ; and pain or paralysis after reduction is due to dragging forward of the nerve upon the neck of the bone, or to its rupture in the act of reduction. 13. In reducing dislocations associated with great pain, it would be well to draw the head of the bone away from the side of the innominate bone during the movements of flexion and abduction, so as to disengage the sciatic nerve and thus prevent either of the accidents above mentioned.—*Brit. Med. Jour.*

THE USE OF PADS IN EXCISION OF TUMOURS.

BY C. F. MAUNDER, F.R.C.S.

I fully agree with Dr. W. W. Campbell on the value, as a general principle of practice, of pads after the excision of tumours. I have no doubt whatever that sponge (though expensive), by reason of its soft and elastic nature, would be the best material ; and, on account of its latter quality, I occasionally use it as a compress after herniotomy. After the removal of larger tumours, such as the mamma, I adopt precautions very similar to those mentioned by Dr. Campbell, but with this exception—I use *two* pads, one on each side of the linear wound. Each pad is made of folded lint, somewhat longer than the wound and parallel with its edge. A wide and long piece of strapping, also parallel with the long axis of the pad, secures this *in situ ;* and, as the line of the wound is not covered, the last drops of blood are squeezed out between the stitches when this is firmly applied. A pad in the axilla, too, prevents bagging of secretion ; and I sometimes use a drainage-tube also for the first three days. Recently I removed a mammary tumour from a patient of Dr. Langmore, of Oxford Terrace. I saw that gentleman yesterday, when he informed me that practically the wound was healed on the fifth day, the middle suture alone having occasioned a few drops of pus ; and that he attributed this rapid healing to the method of dressing employed.—*British Med. Journal.*

We are given to understand that a large amount of ether drinking goes on in certain parts of the North of England. It is found that a man can get drunk at a much less outlay of money on sulphuric ether than on alcoholic liquids ; hence the consumption of the former drug is continually increasing.

NEW SPLINT FOR TREATMENT OF TRANSVERSE FRACTURE OF PATELLA.

BY W. E. STEAVENSON, M.R.C.S.,
Late House-Surgeon of St. Bartholomew's Hospital.

For the treatment of a fractured patella the great difficulty, after setting, is to keep the fragments in apposition without tilting. To obviate this, in 1874, during my house-surgeoncy at St. Bartholomew's Hospital, I devised a splint, and used it in several cases to my own satisfaction and to the benefit of the patient. Had it not been denied by the highest authorities that bony union is possible, I should have considered it had taken place in one or two cases. Since 1874 the splint has been in constant use in Mr. Holden's wards in St. Bartholomew's Hospital, and, I am told, with satisfactory results. I therefore feel justified in bringing a description of it before the profession.

The splint, as made by Messrs. Ferguson, of Giltspur Street, consists of a short, solid, wooden splint about fifteen inches long and seven and a-half inches wide, rather heavy and thick, and grooved to receive the leg ; the upper end of the groove which comes under the thigh is wider than the lower end, which supports the upper part of the calf ; there is a vertical and lateral slit on each side of the splint, in which are two travelling brass clamps, worked by screws, for keeping in place the two strips of Esmarch's elastic bandage which, crossed brace-like, keep the fragments of the patella in position. The Esmarch's bandage should be about two inches and a-half wide. The great advantage of this mode of treatment consists in this fact. There are many arrangements used in treating fractured patellæ which ensure the apposition of the fragments, but by the width of the Esmarch's bandage we are enabled to place nearly half of it on each fragment, thereby keeping it from tilting, the greater half of the width of the bandage pulling it against the opposite fragment by the cross arrangement ; we thereby ensure a continual and gentle pressure of the two fragments together with their broken surfaces perfectly vertical. In setting the fracture, some soft substance, such as several folds of lint, is generally placed upon the splint to prevent galling, and it seldom requires readjustment.—*Lancet.*

A NEW METHOD OF TREATMENT OF STRICTURES OF THE URETHRA.

M. Le Fort read a paper on this subject before the Académie de Médicine on the 7th of November last, an abstract of which we find in *Le Progrès Medical* for November 11th.

He states that he has employed this method of treatment for seven years, with the most favourable results. It consists in placing in the urethra a bougie, which is allowed to remain for twenty-four hours. This causes a softening of the stricture from slight inflammation, and renders the tissues much more distensible. To the bougie is attached a metallic piece, into which a No. 1 conical catheter, having a diameter at its largest part of three millimetres, is secured. The catheter carrying the bougie in front of it as a guide to prevent a false passage, is easily introduced into the stricture, the dilatation of which is thus commenced. Catheter No. 1 is now withdrawn and a No. 2 is introduced, which has a diameter of five millimetres at its largest part. It is passed into the stricture in the same manner, and then withdrawn, and replaced by one having a diameter of nearly seven millimetres. Thus, he states, at a single sitting a very small stricture can be completely dilated, even when its walls are quite resistant. M. Le Fort says the operation is very easy, and there is no danger whatever of making a false passage. There is so little pain that anæsthesia is unnecessary, and there is generally no bleeding at all, or else only a few drops appear at the meatus. During the seven years, M. Le Fort has seen no accidents, except a slight urethral fever, which has always been easily controlled by sulphate of quinia. As in all other methods of treatment, catheterism has to be practised frequently afterwards for some time, to prevent a recurrence of the stricture.

[This method of treatment, while it cannot be considered *new*, has had but little attention paid to it, and is worthy of consideration from the high standing of M. Le Fort.—TRANSLATOR, *Virginia Monthly.*]

DR. L. VOGEL commends monobromide of camphor most highly in spermatorrhœa.

SHORTENING OF THE LOWER LIMB AFTER FRACTURE OF THE FEMUR.

BY JARVIS S. WIGHT, M.D.

* * * * *

Hence, we are entitled to make the following practical conclusions :—

1. We need not expect in all cases of fracture of the femur to give the patient lower limbs of equal length. In other words we cannot always prevent the so-called *shortening :* the number of shortened limbs cannot be accurately fixed.

2. In a certain number of cases of fracture of the femur the injured limb will remain shorter than the other—no matter what the treatment may have been.

3. Excessive efforts persisted in to bring the injured limb down and make it as long as the uninjured one will sometimes fail, and are calculated to do harm ; since the strong fascia of the thigh offers great resistance, and since the injured limb may have been shorter than the other before the injury.

4. If need be, complete relaxation of the powerful muscles of the thigh by etherization will enable an ordinary and admissible degree of extension and counter-extension to give the injured limb a maximum length : or extending weights gradually applied will "tire out" the muscles ; at first apply four pounds, then add to that four more pounds, then make the weight twelve pounds, now increase the extension to sixteen pounds, and in some instances make the extending weight twenty pounds, removing a certain part of the extension as may be considered necessary.

5. The possibility of having the injured limb longer after treatment than the other must be recognised, and the most probable explanation of such a result must be given.

6. These conclusions conform to the practice and agree with the results of the best surgeons.

Finally, perhaps I ought to add, that the variation in the length and obliquity of the neck of the femur, incident to the age of the patient, may not occur during the same time and with equal pace in the femoral necks, and that this may be one cause in some instances of a difference in the normal lengths of lower limbs. At any rate it may be noted that there is a remarkable approach to an agreement

between the differences in the length of normal lower limbs, and the difference in length of lower limbs—one of which has had the femur broken: only the average difference is somewhat greater in case there has been a fracture of the femur. But in general, the tendency of a fracture of the femur is to shorten the limb to which it belongs. And we may fairly regard assertions of always having lower limbs of equal length, after treating fracture of the femur, as open to just criticism. Such assertions are calculated to put individual surgeons in peril of suits at law for malpractice when they do not deserve it; and they are, if found to be untrue, a sure means of throwing discredit on a useful and an honourable profession. —*Archives of Clinical Surgery.*

THE APPLICATION OF THE NITRATE OF SILVER TO ULCERS.—Dr. James Cuthill says that, when solid nitrate of silver is freely applied to an ulcer, a tough film is immediately formed, and the ulcerated surface is for the time being apparently sealed up. The benefit to be derived from such a proceeding, however, as most surgeons who have seen a little practice well know, is only temporary, the pellicle becoming detached by the ulcerative process, leaving a sore frequently larger than the original one. A better plan, which he has practised in some cases with excellent results, is merely to score the ulcer with a finely-pointed pencil of the nitrate, or only to dot it lightly at intervals on the surface. The discharges getting free vent from the non-causticated points, no sloughing occurs, and a healthy pellicle spreads from the touched portions, just as ice forms on a pond of water.—*Edinburgh Med. Journal.*

THE USE OF CHLOROFORM AS AN ANÆSTHETIC has been interdicted in Bellevue Hospital, New York. It is remarkable that here at the South those in general surgical practice have not yet met with those accidents in the use of chloroform so common in the North, and which prohibit its anæsthetic use there. The experience of Southern surgeons, as a rule, leads them to *prefer* chloroform.—*Vir. Med. Monthly.*

Midwifery.

RETROVERSION OF THE UTERUS.

Read before the Medical and Surgical Society of Hamilton.

BY WM. C. CORSON, M.D.,
Physician to Ontario Institution for the Blind.

Retroversion of the unimpregnated uterus is the cause of so much suffering, lasting often for long years. It is so disastrous to the general health, frequently rendering life itself a burden. It has been heretofore so difficult of cure, requiring special skill, and not a little patience on the part of both practitioner and patient, that any suggestions which may prove in any degree useful in its treatment will be received, I feel assured, in the same spirit as that which prompts me to give them. I do not propose to enter into a discussion of the long-disputed subject involved in the question whether these displacements are the cause or the consequence of uterine inflammation, but in my observations I shall endeavour to be as practical as possible, confining my remarks mostly to the subject of treatment.

That the particular form of displacement of which I am treating is of frequent occurrence, will be confessed by those who have given the subject any special attention, and if asked the question as to the most common cause of prolonged ill-health in women, I should unhesitatingly answer, uterine displacements. When we remember how often the uterine ligaments are weakened or relaxed; when we consider how easily the uterus itself loses its inherent tonicity by the degenerative changes taking place in its tissues as the result of low grades of inflammation, and when we bear in mind its frequent periodical engorgements, not to mention the constant liability to dislocation by accidents, by falls, &c., its marvellous growth in pregnancy and subsequent involution by a process of fatty degeneration, we can only wonder the uterus does not oftener lose its equipoise. Neither should we be surprised at the pernicious effect these displacements must entail upon the general health if we reflect upon the importance of the uterus in the female organization and its multitudinous and varied sympathies, influencing as it does the

feelings and emotions of woman's whole being, and placing her in comfort or pain, in happiness or mental agony, as the case may be. While not prepared to endorse the teaching of Prof. Storer, of Boston, and Prof. Mayer, of Berlin, who trace woman's insanity to uterine disease, yet that such disease is often a factor in producing such a catastrophe is absolutely certain.

The following cases occurring in my own practice may serve as illustrations of this fact: The first of which was a farmer's wife and the mother of three children, a woman with strong religious convictions, but whose life was rendered miserable on account of, to use her own words, a stream of horrible oaths running through her head, and which she could not banish from her mind. It proved, on investigation, that she was suffering from anteversion of the uterus and the accompanying internal chronic metritis. As soon as the displacement was corrected, and the inflammation overcome, the oaths disappeared and her life was once more happy and joyous. The other case was that of Mrs. McT., the mother of several children, who had for seven years suffered from leucorrhœa, pain in the back, and other symptoms of uterine disease. She had also been, during these years, the subject of a terrible depression of spirits, amounting to melancholia, so that at one time she seriously contemplated suicide, as she afterward confessed to me. The patient also had anteversion with chronic endo-metritis which yielded to topical treatment and restitution of the uterus, by converting the anteversion into a temporary retroversion by means of Simpson's sound. The effect of this treatment was most satisfactory in restoring her natural buoyancy of spirits and re-establishing her general health. Another case I might add whose sad history is well known to me was that of a young lady who, for years, had all the symptoms of aggravated uterine disease, including metrorrhagia, but who refused all medical treatment. A few months ago she was removed to the asylum, the victim of a lunacy, I doubt not, induced by uterine disease. Did time permit we might also allude to the curious mental phenomena and strange hallucinations of hysteria, which are only exhibitions in a minor degree of uterine, or more commonly ovarian disorder.

For years past I have had decided convictions as to the most frequent cause of retroversion, though I fully confess the difficulty in establishing what is cause and what effect in these cases. That the inclination of the uterus backward from its normal axis and in its various degrees more commonly follows miscarriage or delivery at term is well understood, but that these displacements depend upon that condition of the uterus, known as subinvolution, may not be so readily admitted. In a practice of more than twenty-two years, however, I have carefully measured the length of the uterus in a large number of cases of the kind coming under treatment, and in a vast majority of instances this condition was found co-existing with this displacement, the uterine probe revealing a measurement of three, three and a-half, four, and five inches. We are indebted, I believe, to Sir James Simpson, for the first accurate description of subinvolution, which is an arrest of that retrograde movement through which the womb passes from its large size in pregnancy to become an organ only three inches in length; and by referring to his monograph on subinvolution we find that the first two cases reported by him were complicated with retroversion, though Sir James never taught that the two conditions were necessarily associated or in any way inter-dependent. Years ago, Dr. Tilt, of London, wrote of defective involution as the substratum of uterine diseases and the soil on which they grow; and he lately reaffirmed the same fact, though with a different figure of speech, when he declared that the experience of the last few years convinced him of the correctness of his former language, and that defective involution is the workshop of uterine pathology. It is perfectly natural to suppose that the womb, in this hypertrophied state of imperfect involution by which it is left overweighted and topheavy, should easily become tilted forward, or, as more commonly happens, should sink down backwards by its own specific gravity into the cavity of the sacrum.

Without entering otherwise into the causes of this affection, which are various, or consider-

ing the symptoms, which are numerous, or the diagnosis, which is comparatively easy, or the prognosis, which ordinarily is favorable, all of which subjects are ably treated in our text-books, let me proceed at once to consider the subject of treatment.

And, first, let me say that it is very important to have the right kind of speculum, and for the ordinary routine of daily practice, I still prefer the mirrored, cylindrical glass speculum of Fergusson, provided it be large and short. A large speculum has the advantage not only of presenting a larger field to view, but by distending so shortens the vagina as to bring the uterus nearer to the operator. In the nulliparous, or in any case requiring some special procedure, the modification of Sims' duckbill speculum, by Dr. Nott, has, in my hands, answered every indication. It has the advantage of being self-retaining, so that an assistant is despensed with, and both hands are left free for the more particular manipulations of gynæcology.

It will materially assist us if we bear in mind that as a rule, to which there are few exceptions, every case of retroversion is accompanied by endo-metritis, and that this inflammation, whether considered in the light of cause or effect, must be subdued. Often the internal surface of the uterus is denuded of its epithelium, and presenting an appearance which is similar to that condition of the eyelids called granular. The morbid changes are not confined to the lining membrane of the uterus, but extend into the parenchyma of the organ. Certain engorgements, proliferation of connective tissue, and plastic exudation being the result. Between the enlargement following an arrest of the physiological process of involution and the pathological changes depending upon these adventitious deposits in the uterine substance we have, as a result, the uterus increased in size, in weight, and in density. Now, it is established beyond all question that certain caustic substances, which, by their alterative action when applied to the interior uterus, set up a new and healthy process, are the most potent means to be used in reducing this inflammation. I have tried them all—nitrate of silver (in substance and solution), carbolic acid, chromic acid, iodine, nitric acid, and the acid nitrate of mercury, etc. A series of experiments performed by Prof. Peaslee, of New York, showed conclusively that the effect of some of these applications was to coagulate the albumen on the mucous secretions, and thus interpose a film, which acts as a barrier to producing the desired effect. The result of these instructive experiments was to prove that iodine is the true solvent of the albumen and the best application which can be employed, and my own experience confirms, in my own mind, the Professor's conclusions. The other advantages of iodine are, that it is efficient, yet harmless, causing neither undue pain, nor inducing cicatricial contraction of the cervix, nor other unpleasant consequences; and that not only is an alterative influence established on the diseased surface, but also that its specific absorbent effect is obtained. It is essential to success that the iodine should be in solution—neither so weak as to be inert, nor so strong as to prove irritating; and experience proves that a solution from sixty to ninety grains to the ounce is the most effectual. For years past I have used the strength employed by Dr. Budd as an intra-uterine injection, the formula for which is as follows :—

Iodine	80 grains.
Iodide of potassium ...	30 grains.
Pure spirit	1 oz.

How shall such a solution be most thoroughly applied to the inner surface of the uterus? I have long ago discarded injections into the uterine cavity as highly dangerous, unless a free exit be previously provided by dilating the cervix; but, instead, I have used Emmett's Applicator, which is a flattened probe of pure silver, eight inches long, and fitted to a handle. Upon the end of this probe, say for the distance of two and a-half inches, a film of cotton batting must be wound, which is accomplished by teasing the cotton into a thin layer in the fingers of the left hand, while the probe in the right hand is made to turn and wind the cotton upon itself. This process complete, the fingers should be slightly moistened and passed over the surface of the cotton, so as to compress it firmly upon the probe. Those unused to the applicator prepared in this way might suppose

that the cotton would easily become detached and left behind in the uterine cavity, but a little practice in winding the cotton upon the probe will render such an accident impossible. It is first necessary to cleanse the diseased surface; then, having seized the posterior lip of the os with Sims' tenaculum, for the purpose of steadying the uterus with one hand, with the other hand the probe is dipped in the solution and carried through the cervix to the body of the uterus, when, by a rotary movement of the handle, the whole internal surface of the uterus is painted with the iodine. If a decided impression is required, it is well to allow the probe to remain within the uterus for half-a-minute before withdrawing it, or allow the cotton to take up more of the solution and repeat the application at once. Though some of the solution is pressed out in its passage through the cervix, yet enough will be retained to produce the desired effect. Having wiped away any undried solution from about the os tincæ, the patient, before rising, is desired to remain quiet until the slight pain induced has passed away. An application of this description, made once a week (excepting, of course, the few days preceding and following a menstrual period), and persevered in for some months, will produce most satisfactory results, as observed in the lessened discharge and reduction in size of the bulky uterus, while the general health and strength will exhibit a corresponding improvement. Sometimes in these cases the granular inflammation of the inner surface of the uterus, to use the expressive word of Prof. Simpson, *creeps* outside of the womb, producing the appearance of abrasion or erosion, sometimes erroneously called ulceration, though true ulceration, involving loss of substance, I believe to be a very uncommon condition in uterine disease. When, however, such a solution of continuity does exist, whether of the single, smooth, excavated ulcer, or the irregular ulceration having a worm-eaten appearance, which is more common, or of simple erosion, which is more frequent still, there is no application comparable to the acid nitrate of mercury, in which cases the denuded surface should be thoroughly cleansed and wiped perfectly dry, when a single drop of the acid (or less), on the end of a glass rod, applied lightly, but thoroughly, to the seat of disease, will set up at once a new and reparative process. Large lavements of the warm vaginal douche should follow this application in the next twenty-four hours, and the application itself needs to be repeated but a few times, at intervals of a fortnight, when the healing process will be found complete. Sometimes, in very patulous conditions of the os and cervix, a drop of the acid may be applied to the interior of the uterus with probe and cotton, not only with impunity, but with decided advantage.

Having removed the inflammation to a certain extent by a number of applications, the next indication in the treatment of retroversion is to restore the uterus to its normal position and retain it there by some mechanical support. Whatever prejudices may have existed in years past against the use of pessaries, on account of their imperfections and their failures, certainly the time has now come when these defects no longer exist, and I should no more think of attempting to cure a retroverted uterus without the aid of a support than of treating a fractured limb without the use of a splint. In a lately-published article, Dr. Grailly Hewitt justly remarks that the advantages of straightening a retroflexed uterus are, that the processes of nutrition, circulation, and absorption go on more readily when the uterus possesses its natural shape. Of all the pessaries brought into use (and their name is legion) I much prefer the Albert Smith pessary, as lately modified by Prof. Thomas, of New York. To introduce this pessary, it is best first to place the patient in the knee-elbow position, with the breast flat to the couch, and, by a pressure from behind upon the body of the uterus, tilt it forwards into position, and then allow the patient to rest gently upon the left side. The perineum is then retracted with the index finger of the left hand, while with the right hand the pessary is carried on its flat through the vulva, and, once within the vagina, it is turned, so that the posterior expanded end is carried into the cul de sac behind the cervix, while the anterior narrow end is allowed to rest just beneath the symphisis pubis. There is often a feeling of comfort expressed by patients as soon as the uterus is reposited and held *in situ* by a well-fitting pessary. We must, however, avoid the temptation to use too large an instrument, which, by over-distending the vagina, impairs the agency of that canal as a uterine support. As this

pessary is of hard rubber, it is perfectly unirritating, and a patient of mine, who has passed the second climacteric, has worn a Smith pessary for several years, not only with comfort, but with the effect of greatly improving her health.

Sometimes in cases of long standing the hypertrophy and induration are so great that the uterus can never be made to return to its original size and weight, nor to maintain its normal position. Even in these aggravated cases, by a faithful perseverance in the use of sponge tents and topical applications, such an improvement is made that a tolerance of the retroversion is established, and the patient restored to comparative health.* I recall to mind a few instances of this description, where conception unexpectedly took place after seven or more years' rest from child-bearing, and one case in particular, referred to me for treatment by her physician, where the womb could not be lifted from its bed on account of the firm adhesions which bound it down, and yet, after nine months' treatment, pregnancy took place, and she was safely delivered by her medical attendant nearly eight years from the date of her last confinement.

As illustrations of what may be accomplished in cases apparently hopeless, I append very general notes of two patients whose history is well known to their own circle of friends :—

Mrs. C——, aged thirty, of good constitution, the mother of five children; previous to present affliction had enjoyed good health. At my first visit I found she had lost the use of her lower extremities—not having been able to stand upon her feet for a whole year. The physician previously in attendance had discovered that this loss of power of locomotion depended, through a reflex influence, upon a uterine displacement, and had tried various supports, which had either been not well borne or failed to yield the required support, so that she grew more helpless. An examination in the bimanual method revealed the uterine body, much increased in volume, lying in the cavity of the sacrum, and the cervix under the arch of the pubes. Upon attempting to pass the uterine probe, it was arrested at the os internum, and by no given curve could it be made to enter the general cavity of the uterus. By having the patient held upon her knees, and then pressing the uterus forwards from behind, the organ was so far srtaightened that the probe was passed in, though making rather an acute angle beyond the os internum, so that the case in reality was one of retroflexion, combined with retroversion, as sometimes happens (Klob). After making numerous applications, and using local depletion, the engorgement was so much relieved that the uterus was reposited and a Smith's pessary placed in position. After four months' treatment this lady began to improve, and to walk with the help of crutches. In short, as evidence of her complete recovery, it may be mentioned that, in less than a year from the time she began to walk, I had the satisfaction to attend her in confinement, from which she had an excellent getting up.

The other case is still more remarkable. Miss M——, aged twenty-five, with an excellent constitution, four years previous to my attendance had been thrown backward to the ground from a "spring-board" conveyance by the sudden starting of the horse. No serious injury was felt to have taken place at the time, but she remembered that from that date the strength of her lower limbs began to fail, and at the end of three years she was confined to her bed, where she had lain more than a year before my professional attendance. She became so reduced at times that it was necessary to turn her in bed by the help of a sheet. She had been for months under the care of a respectable practitioner, who had recognised her difficulty, and had tried the Meigs' ring pessary, etc., without relief, and the opinion was expressed that she would never rise from her bed. In this case the inflammatory changes were not marked, the chief difficulty seeming to be the mechanical displacement of the uterus. At my first visit the organ was replaced, and a Smith's pessary applied, and at every visit afterward, made at intervals of a week, there was a perceptible improvement. At the end of three months she began to walk with the assistance of crutches, which she continued to use for several months before she had the confidence to walk alone. Without detailing the various steps in her improvement, it will be sufficient to state that she was fully restored to health.

In conclusion, I may remark that, in the foregoing observations, I have given in outline only the local treatment of this often unrecognised affection. There are many details of minor importance which may be dwelt upon on some future occasion; meanwhile, if I shall be the means of directing more particular attention to this subject, the object of this paper will be secured.

* There is no doubt but the pessary of Cutler is adapted to these rare cases, but the difficulty in obtaining them constitutes a serious obstacle to their use.

Nitric Acid for Hoarseness.—Dr. W. Handsel Griffiths says that a few drops of nitric acid in a glass of sweetened water, a couple of times daily, will be found an excellent remedy for the hoarseness of singers. One of the largest fees ever received by him—so he says—was for this prescription.

CASE OF EXTRA-UTERINE GESTATION; REMOVAL OF LIVING FŒTUS BY ABDOMINAL SECTION; RECOVERY OF BOTH MOTHER AND CHILD.

BY THOMAS R. JESSOP, F.R.C.S.,

Honorary Surgeon to the Leeds General Infirmary.

* * * * * I found her looking emaciated and pain-worn, vomiting after everything swallowed, constipated, feverish, with a dry tongue, great thirst, and a rapid feeble pulse. It was abundantly evident that the patient was fast sinking.

At eleven p.m. a consultation of the whole surgical staff was held, at which the following observations were made. The abdomen throughout was distended. At the umbilicus and below was a large rounded prominence, which gradually sloped off towards the ensiform cartilage, and terminated inferiorly somewhat abruptly in a hollow, which was bounded again by a lesser prominence immediately above the pubes. On a closer examination, the umbilical prominence presented the character of a child's breech. The cleft and the two buttocks were distinctly traceable through the thin abdominal walls, and extending upwards in a straight line towards the sternum, the little prominences of the vertebral spinous processes were plainly perceptible. Above the pubes two feet could be made out, and above the umbilicus, immediately below the ribs, it was not difficult to map out the outlines of the two scapulæ. The rapid beating of the fœtal heart could be most distinctly heard towards the right side above the umbilicus. The breasts were enlarged, and the areolæ were fairly developed.

On examination per vaginam the uterus felt somewhat enlarged, and on measurement by Simpson's sound its cavity was found to be two inches and a-quarter in length. The uterus remained motionless whilst the abdominal contents were swayed from side to side. On several occasions the movements of the child were plainly visible, and indicated considerable vigour. After repeated careful search we were unable to satisfy ourselves of the presence of a placental souffle. The diagnosis of extra-uterine gestation seemed complete. The woman's condition was becoming extremely critical. Under these circumstances it was decided to remove the child by abdominal section. With the full concurrence of my colleagues, I accordingly proceeded to perform the operation at half-past twelve on the morning of the 14th of August.

The patient having been placed under the influence of ether, and the bladder emptied of urine, an incision six inches long was made through the linea alba, with the umbilicus at its centre. The abdominal wall was unusually thin, but more vascular than common, and the peritoneal lining, though natural on its free surface, appeared thick and velvety on section. Immediately upon the completion of the incision, the breech and back of the child, thickly coated with vernix caseosa, came directly into view. At the upper part of the wound the omentum was seen lying like a cap upon the child's shoulders; and inferiorly the funis, of natural appearance, passed transversely across the wound, and was traced round the external aspect of the left thigh of the fœtus to its attachment at the umbilicus.

The child was in a kneeling position, its breech presenting towards the mother's navel, its head folded upon its chest, buried beneath the omentum and transverse colon, the soles of its feet pointing towards the pubes, and its knees resting upon the posterior brim of the pelvis. Its removal was readily effected. The funis was tied and separated in the usual manner, and the child was handed over to the custody of two gentlemen previously appointed to look after its well-being. It was now seen that the gestation had been of the "abdominal" variety; no trace of cyst or of membrane could be found. The child had lodged in the midst of the bowels, free in the cavity of the abdomen.

A few bands of unorganized lymph of a very friable nature, lying upon, but not adherent to, intestines, were readily removed by sponging, and about an ounce of clear serum was found in the peritoneal cavity. On tracing the umbilical cord, the placenta, having a larger superficial area than natural, was seen covering the inlet of the pelvis, like the lid of a pot, and extending some distance posteriorly above the brim, where it apparently had an attachment to the large bowel and posterior abdominal

wall. Near its centre was a round prominence, which seemed to correspond with the swollen fundus of the uterus beneath. Great and especial care was taken not to cause the smallest disturbance to its connections. The placenta was indeed left *untouched*. The umbilical cord was now brought out of the wound and shortened, so as to have its cut end protruding about two inches beyond the surface of the abdomen, where it was secured at the inferior extremity of the wound by means of a clamp which has been invented by the ingenious chaplain to our infirmary—Mr. Gough—for the treatment of the pedicle in ovariotomy. The wound was now closed by means of six silver-wire sutures passed through the entire thickness of the abdominal wall, and including the peritoneum, together with as many intermediate superficial sutures of silk. It was then observed that the prominence above the pubes before alluded to was due to the placenta covering the enlarged uterus. Strips of plaster, pads of lint, and a roller completed the dressings.

The child, a female, was well developed, considering that in all probability it had not reached the eighth month of fœtal life. For a considerable period of time—from an hour to an hour and a-half—there was much uncertainty as to its survival, owing to very defective respiration. Perhaps this might have been due, as was suggested at the time by Mr. Hey, to its having become etherised or in other manner narcotised through the medium of the mother's blood. At length, through the skilful management of Mr. Hey and Mr. Scattergood, healthy breathing became established, and the immediate danger to the child's life was averted. In the course of a day or two a wet nurse was procured for it, and afterwards its progress became most satisfactory. * * * *

For the first four days it was deemed prudent to keep the patient upon the table in the operating-room, lest her removal should prove prejudicial. Afterwards she was placed in a private ward. Morphia was injected subcutaneously, at first freely and frequently, subsequently at longer intervals, and on the 26th of September, six weeks after the operation, it was finally abandoned. During the first two days nothing was given by the mouth but a little ice. On the day after the operation, nutrient injections were commenced, and they were continued for about four weeks, being given at first once in four hours, and subsequently at increasingly long intervals. On the morning of Aug. 16th a little flatus, and on the 18th some fæces, passed from the bowels. From the time of the operation the vomiting gradually lessened in frequency and in severity, and by Aug. 17th it had ceased to follow upon each act of swallowing, and had become an occasional symptom only.

On the 17th, too, the clamp was removed, and the funis, in a gangrenous state, could be traced deeply through the wound. To prevent it from dropping into the abdomen it was secured outside by means of jute and adhesive plaster. From time to time she complained, when not under the influence of morphia, of very great pain at the bottom of the body and in the thighs. There was not at any time a discharge from the vagina, although she made complaint of pain and forcing as if due to uterine contraction. On the 18th of August her breast became distended with milk, and by the 22nd it had disappeared again. Besides the nutrient enemas she now began to take a few spoonfuls of milk and gruel by the mouth. On 19th August, five days after the operation, the dressings were found soaked with a bloody discharge. This continued daily for some time in quantities varying from one or two, to as much as eight or ten ounces. On the 22nd it was observed to be offensive, and of a thick, dark, grumous character ; and in a few days later the stench arising from it was most intense. On 24th August she had a severe rigor, lasting ten minutes, and this was followed by vomiting.

On August 29th the vomiting had ceased, and her general condition had so far improved that her request to have tea and a biscuit was complied with. From this time her diet was improved daily—fish, eggs, chickens, &c., being cautiously added at intervals.

On Sept. 4th the funis was cast off as a long slender slough, its discharge being followed by a copious flow (six or eight ounces) of fluid.

The wound had now healed in its entire length, with the exception of the round hole

at its lower extremity, which had previously been occupied by the umbilical cord. At this time three weeks had elapsed since the operation. During the next fortnight the discharge was most profuse. Two, three, and even four times in the twenty-four hours she was seized with agonising abdominal pains, which, after lasting from a few minutes to two or three hours, were at once relieved by an outpouring of a quantity of putrescent fluid. On the 10th of September I stood by her in one of her most severe attacks, and I was almost alarmed, upon hearing her exclaim, "There, I shall get relief," to see not less than half a pint of a coffee-coloured fluid, of the consistency of treacle and unbearably offensive, rapidly forced out of the wound.

On Sept. 14th she complained of pain in the right leg and foot, and upon examination these were found to be slightly œdematous. There was also some tenderness along the course of the femoral vein in Scarpa's triangle. On the 15th a slough three inches long came away. On the 16th the discharge became purulent and decidedly less in quantity. It was observed that the supra-public prominence had now disappeared. By the 18th the œdema in the leg had gone, and on the 19th the patient sat up in bed to dinner. Her progress now became steady and equable. On the 27th of September she sat for an hour in a chair, and on the 9th of October she was able to be transferred to the general ward. The discharge had now become small in quantity, thin and serous in character. On the 29th of October the wound is reported as quite healed, and three weeks later she returned to her home. From that time to the present, she has kept in good health. Menstruation commenced about a month after she left the infirmary, and has recurred at regular periods ever since. * * * * * *

Under the circumstances we deemed ourselves justified in undertaking the operation—*justified*, I repeat, because it offered the only small chance of saving the mother, and justified again by the fairer prospect of preserving the infant.

And now, lastly, was there anything in the line of treatment adopted which may be said to have contributed in any degree to the successful issue?

Putting aside the very critical condition to which the woman was reduced at the time of operation—and I am not quite sure that even this ought to be reckoned as weighing against the chances of recovery,—it would be difficult to conceive a case of extra-uterine pregnancy presenting fewer difficulties, or more free from dangerous complications. The peritoneum was in a fairly healthy condition, and contained nothing more than a few albuminous shreds, and a small quantity of a clear liquid. There were no membranes, no adhesions, no enclosing capsule for the child. There was no bleeding to staunch, and the abdominal organs were but little disturbed. These facts must be kept well in mind when estimating the danger in any future case. Nevertheless, two points in the treatment do seem to me to be specially worthy of mention—viz., the care which was taken not to interfere in the slightest degree with the placenta, and the provision which was made for securing its escape from the abdomen after its separation from the maternal structures. Nothing need be said as to the form of these precautions, except that the result in this case confirms the wisdom of those who have so strongly insisted upon its importance. Unless the placenta can be removed without the risk of setting up a copious bleeding, it had better be left absolutely undisturbed. But what is to become of it? The placenta formed in this case, as it must in most, is by far the largest item in the sum of dangers to be encountered. Experience has shown that a separation from the maternal structures will take place, and that this period of separation must be reckoned as one of the most fatal. Besides the risk of hæmorrhage there are others not less grave—peritonitis, septicæmia. All these dangers are diminished by securing an uninterrupted outlet for the detached placenta, and such discharges as may accompany its separation. The means made use of, after careful consideration, consisted in keeping the inferior end of the abdominal wound open by means of the umbilical cord, left attached to the placenta. Through this opening the disintegrated tissue and offensive fluids found ready egress, and thus were prevented from spreading damage around. Upon looking back, no device has ever suggested itself to my mind better calculated to secure the end which in this case was happily attained, and I think now, as I did at the time, that to our management of the placenta may be fairly ascribed a large share of whatever credit we may claim in bringing about a successful issue.—*London Lancet.*

CASE OF OBSTRUCTIVE DYSMENORRHŒA.

CLINIC OF PROF. GOODELL, UNIV. PENN.

Cystic degeneration of the ovaries is comparatively a rare disease, and few of you will be called upon to perform the operation of ovariotomy; but our next patient is afflicted by a disorder so commonly met with, that I bespeak your earnest attention. Ever since the age of puberty, this young, unmarried woman has suffered from painful menstruation. Growing worse every month, she is now obliged to give up all work, and take to her bed for two or three days out of every four weeks. Since she depends upon her own exertions for a livelihood, these periodic attacks of pain and of confinement sorely cripple her. So great have been her sufferings, that, without a word, she consented to take ether, and to undergo any operation that would promise a cure.

You will find, in your text-books, that different causes are assigned for this trouble. For instance, there is obstructive dysmenorrhœa, and there are congestive, rheumatic, neuralgic, and membranous dysmenorrhœas. The treatment varies, of course, with the cause, and it is our business to search that out. But, let me tell you that this is often easier said than done, and we are forced, sometimes, to treat our patients empirically, that is to say, by a round-about, common-sense empiricism.

Our patient came here for the first-time to-day, and a few minutes before my lecture hour. There was no time for an examination, and but little for even a hurried history of her trouble. Yet I will venture to predict that her dysmenorrhœa is a mechanical one, and owing mainly to an anteflexion of the womb. Let us see whether I am right. The hymen is intact, and the examination will break it, unless great gentleness be used. The first examination of an unmarried woman should, therefore, as a rule, be made under ether. But, as some patients refuse to take it, and it is not always convenient to give it, I shall act as if this girl were not unconscious. The index finger of my left hand is first slowly introduced, and with it I feel a hard, round body through the roof of the vagina. It is now withdrawn, and the tips of two well-greased fingers are next made to enter. Little by little, with intervals of rest, they are coaxed up to the second joint. The hymen has now been stretched enough to admit my base-opening speculum. The blades are slowly screwed apart, until the edge of the cervix uteri just appears above the tip of the lower blade. To avoid the pain of any further distension of the parts, for I am now supposing her to be conscious, I hook up the cervix with a tenaculum, and bring an eroded os into full view. This has been done without injury to the hymen, but it does not always so escape. Nor should its integrity stand in the way of treatment.

The sound cannot at first be made to pass up, but by bending it sharply, and by holding the cervix steady with the tenaculum, I finally, with some force, get it in. My off-hand diagnosis is right. The womb is bent double, and the hard body felt through the anterior wall of the vagina is the fundus lying on the bladder. But in addition to this anteflexion, there is a narrowing of the cervical canal. Now, how did I foretell this condition? Was it merely a lucky guess? Not at all; the history of the patient gave me the clue. In the first place, she is unmarried, and my past experience has taught me that, in virgins, and in sterile married women, uterine displacements are usually an exaggeration of the slight anteflexion which naturally exists. In the second place, she had told me that her menstrual secretions escape in exquisitely painful gushes, followed by short lulls. Such a history means, in nine cases out of ten, a flexion of the womb. In other words, the menstrual fluid, imprisoned by the bend in the cervical canal, goes on accumulating, until, by distension, the womb is straightened, and the obstruction overcome. Now, by putting this and that together, I was led to anticipate a forward displacement of the womb. But anteflexion, although the rule in nulliparæ, is not always the displacement. Last year, in an analogous case, I boldly announced an off-hand diagnosis of anteflexion, and had to eat humble pie, for the womb turned ont to be bent backward. Whenever the woman has borne children, there is no telling beforehand what the cause of the dysmenorrhœa may be, but it usually is retroflexion.

The question of cause having been determined, that of treatment next comes up. Were the symptoms less exacting, and the calibre of the cervical canal of a natural size, I should limit my treatment to topical applications, and to the introduction of a pessary. And one of the best for this purpose would be, as I have often shown you, an unmodified closed-lever pessary, introduced wrong end foremost. But common-sense — and that is the deity whose aid we must invoke—tells us that in this case the uterine canal needs to be widened, as well as to be straightened. Rapid dilatation compasses both these ends. Steadying the cervix with the tenaculum, I pass into the os uteri, as far as they will go, the closed blades of my uterine dilator. Upon my gently stretching open that portion of the canal they occupy, the stricture above so yields that, when again closed, the blades pass up still higher. Thus, little by little, they now have tunnelled their

way past the os internum, and into the uterine cavity. The handles are next forced together, and the divergence of the blades both straightens and widens the canal. If this operation be performed under ether, so as to be thoroughly done, and with a powerful dilator, the blades of which do not feather, the cervical canal will hardly ever return to the same degree of flexion or of contraction, as previously existed. Occasionally a second dilatation will be needed; sometimes, indeed, but very rarely, the incision of the canal. This operation of rapid dilatation looks like rough handling of so delicate an organ as the womb, but only once have I seen any ill-effects follow it. In this case a smart pelvic peritonitis was set up, but it promptly yielded to appropriate remedies.—*Med. and Surg. Rep.*

A YEAR'S OVARIOTOMY IN THE SAMARITAN HOSPITAL.

On February 14th, Mr. Spencer Wells performed ovariotomy for the first time in 1877 in the hospital, on his return from the Continent; and he took the opportunity of giving the experience of the operation in the hospital for the year 1876. He said it was the most favourable yet attained in that hospital, and, he believed, anywhere. There had been fifty-five operations, and only five patients had died, while fifty had recovered: a mortality of little more than 9 per cent. He had done forty of these operations himself, and four patients had died, or one in ten. Dr. Bantock had done seven, and six patients had recovered; and Mr. Thornton eight, all of them successful. Many of the cases had been extremely severe, and in several both ovaries were removed. On the 21st ult., Mr. Wells added that the patient operated on on the 14th was recovering without an unpleasant symptom, and that three of the patients operated on last year had been examples of ovariotomy performed for the second time on the same patient. In one, the first operation was done eleven years ago; in the second, three years ago. Both patients recovered better after the second than after the first operation; and so had a third patient, on whom he (Mr. Wells) had operated three years after the first operation, which was performed at Portsmouth by Dr. Ward Cousins.—*Brit. Med. Jour.*

At the meeting of the Surgical Society of Paris, on the 3rd of January last, M. Polaillon communicated a case of complete luxation of the xiphoid appendix in a woman seven months pregnant, who sought to conceal her condition by means of a corset.—*Le Progres Medical.*

Medical Jurisprudence.

THE BORDER-LAND OF INSANITY.

BY EUGENE GRISSOM, M.D.

(Continued from our last.)

Peter the Great, whose exploits have been the wonder of our childhood, and whose powers of administrations and superb executive energy challenged the admiration of all men, paid alike the inevitable penalty of a vicious ancestry and a disordered life. He gave himself up to the control of evil passions, and the most debased sensual excesses. History abounds with the strange freaks that will occur to every reader. He sees his son, Alexis, condemned to death; at another period, he remains three days and nights fasting, upon the death of Peter, his favorite son, and his own life was despaired of. Again, for maladministration, he flogs with the dubina (his cane of Spanish reed) the person of the celebrated Menzikoff, prime minister of the realm. Finally, the paroxysms of an obscure disease, which physicians recognize as exceedingly painful, ushered in outbreaks of wild mania, and he came to the grave.

Victor Amadeus I. of Sardinia, was a victim of kleptomania. King as he was, he could not resist an overpowering inclination to commit the most petty thefts of valueless trifles.

Queen Francisca, of Portugal, is another monarch whose insanity was so complete as to remove her from the throne in the early part of the century.

But probably no page of royal calamity possesses the interest to the American people, which hangs about that which recounts the misfortunes of George III. This monarch, it has been said by a distinguished authority, was one who might least have been expected to fall into insanity, by hereditary predisposition, or bodily constitution. But will not a full examination of his history rather indicate the contrary opinion? The father of the Hanoverian line, Duke William, of Lunenburg, called William the Pious, was deprived by fate of sight and reason. "Sometimes in his later days," says Thackeray, "the good Duke had glimpses of mental light, when he would bid

his musicians play the psalm tunes which he loved. One thinks, says he, of a descendant of his, two hundered years afterward, blind, old, and lost of wits, singing Handel in Windsor Tower."

The fifteen children of William the Pious, had but a small inheritance, and the sons drew lots to determine which should marry and continue the line of Guelphs. Upon the sixth brother, George, the fortunate lot fell. You are familiar with the fortunes of his descendants; how, after Queen Anne's death, the English throne went to the distant Elector of Hanover, who did not even know the English tongue. He seems, with his court, to have spent his days in plundering his subjects; quietly, his worthless and criminal wife, it is well known, was a State prisoner for thirty-two years. The son, George II, knew no law but his passions. It was he who challenged his brother, King of Prussia, with sword and pistol, to settle a great transaction; day and seconds were chosen,—only the fear of the ridicule of Europe stopped them. He lived among women unfit to touch the hem of the garments of the pure, the life of a Turk in his Seraglio, at sixty years of age. He stained society by bad example, gross and low, from youth to hoary age.

The son whom he hated, and drove from his house, without his own children to accompany him, was Frederick, who died before reaching the throne, leaving a son, George III. George II. was found dead, it was said, in an epileptic fit. The new king never mentioned his father Frederick. What could he have been, hated and forgotten by parent and child?

George III. was a dull boy, of little brain, brought up without much education, by a very domineering and narrow-minded woman. The child was kept in loneliness and gloom, deprived of pleasures, and filled with prejudices. The hard and cruel mother, once seeing the young Duke of Gloucester unhappy, sharply demanded why he was so silent. "I am thinking," said the poor boy. "Thinking, sir, of what?" "I am thinking if ever I have a son I will not make him so unhappy as you make me."

After his marriage with a plain but excellent German girl, the King lived a quiet country life; but the penalty of the trangression of former generations must be enforced. He was insane five times; first in 1765, when he was but twenty-seven. This followed immediately after a cure of a chronic eruption on his face. In 1778 his malady returned with fearful power. All the gestures and ravings of the maniac appeared, and the wild howlings of a beast. He attempted to throw himself from the window, and for a time it was thought life would give away. The attack lasted about five months, when he resumed the reins of power. The fact is a touching one, that an early act upon recovery was to visit a poor-house and examine the new rooms being prepared for the comfortable accommodation of lunatics and express his gratification at the work of charity.

Perhaps a single anecdote may be admissible here concerning his treatment. Although he soon became calm, and never evinced any disposition to strike or injure any person or furniture, he was subjected to mechanical restraint to increase his self-control. No patient, not even the humblest wretch, would now be subjected to the ordeal which he underwent. A writer relates that while walking through the palace during his convalescence accompanied by an equerry, they observed a straight-jacket lying in a chair. The equerry, averting his look as if to conceal some embarrassment, the King said: "You need not be afraid to look at it. Perhaps it is the best friend that I ever had in my life." The famous Dr. Willis was his physician, and asserted that the attack came from "weighty business, severe exercise, too great abstemiousness and little rest."

George III. was again seized in 1801; for a few months in 1804; and for the last time in 1810, and he remained in that condition until his death in 1820. Among his delusions was one that he could preserve an intercourse with the dead. Once in the council addressing himself to two friends, long in the grave, Sir Henry Halford, the court physician, reminded him that they were dead. "True, was the reply, they died to you and to the world in general, but not to me. You, Sir Henry, are forgetting that I have the power of holding intercourse with those whom you call dead. Yes,

Sir Henry Halford, it is vain, so far as I am concerned, that you kill your patients." When he had been several years a patient in Windsor Tower, he was found by the Queen one day singing a hymn and playing on the harpsichord. When he had finished, he knelt, prayed for his family and the nation, and implored the restoration of his mental powers. Suddenly he burst into tears, and the veil between him and his kind had fallen again.

His entire reign was the era of the bitter strifes of Pitt, Fox, Sheridan, Burke, and all the immortals of that age of British oratory. The poor dull King, with the common people at his back, arrayed himself against the patricians. He said he knew he wanted his people's prosperity; so whoever did not think with him, and stand ready to obey, must be a traitor. Hence his war upon the colonies. The Americans were petulent rebels who must be taught to fear God and honor the King, much as his stern mother had disciplined him, and he succeeded, and war was declared. The poor mad King, who bore a disease-stricken frame for eighty years, cried at last for mourning to wear, when he heard a funeral knell, for, said he, "Poor George III! I know he is dead."

Turning from the royalty of place to that of human genius, and high fame, we are literally bewildered amid the throng of those upon whom brain disease laid its mark, whether lightly, as the touch of a child, or even like the fiery brand of the executioner.

Among the ancient worthies, great Socrates himself did not escape. Plato and Xenophon, both speak of the familiar *daimon*, which they averred, alway accompanied him, and when it made its voice heard, always guided his plans. This has been supposed a hallucination of hearing. And what a man was the great philosopher, wearing the same garment an entire year, barefoot in winter and summer, often dancing wildly, carrying his head in a strange position, with no occupation but preaching in the markets and shops, and pouring his relentless irony upon friend and foe, perhaps to return upon the world what he bore from his own wife! He is said by Diogenes Laertius to have remained an entire day, in a trance, in one position, standing and harkening to a celestial voice, at the Siege of Potidea. Yet this is the man, whose sublime doctrines, by ancient and modern alike, are confessed to be first in the heathen world.

I will not dwell upon the references in ancient lore to the madness of Hercules and Ajax, Ulysses and Lysander, Bellerophon and Plato himself. But, in more modern times, we find Tasso, the immortal author of *Jerusalem Delivered*, shut up for years, a victim of the wildest delusions. Benvenuto Cellini, the artist, sees a resplendent light hovering over his own shadow. Raffaelle himself declares that while painting the *Transfiguration*, that magnificent creation of human genius, he might well have been considered an enthusiastic madman. He forgot himself absolutely, and the whole action passed before his eyes. Pascal, whenever in intense thought, beheld a fiery gulf open by his side. If his attendants placed a chair between him and the precipice, composure might return, as he beheld an obstacle between himself and danger,—so portentous is the power of diseased imaginations! Descartes, whom I need not characterize as one of the greatest minds known to fame, was followed, as he supposed, by an invisible person, calling on him to search for truth. Metastasio, who described in his exquisite writings the sensations of incipient madness, drew it from his own unhappy experience. Crudent, the author of the famous Concordance to the Bible, wrote it while insane. He was three times within an asylum, once before he was twenty years of age. Joan of Arc, the maid of France, suffered from a physical disorder, which any physician recognizes now as the forerunner of insanity; and a thousand facts show that this maiden of poetry was a victim of a form of insanity, in which there is the full conviction of his possession of supernatural power. Kean, the actor, died from mental strain, in personating Othello. Rousseau was followed by a life-long delusion that he was persecuted by the entire world. Jerome Cardan, the greatest physician and natural philosopher of his time, was tormented with hallucinations, as was Paracelsus, also.

Pascal, to whom I have already referred, and whose mathematics were only second to Newton, after he had broken down his physical frame by

fastings and vigils, and overworked his weary brain, actually wore an amulet against the demoniac visitations that destroyed his peace.

Indeed, "overwork of the brain," it has been justly said, "is unlike an excess of labor when demanded of other organs. They refuse to discharge their functions when overtasked, or gradually gaining rest, are at last enabled to accomplish the task. Overworking the stomach destroys the appetite, and the duty is no longer imposed. Overworking the muscular system does not break down that, but rather the nervous system with which it is so nearly connected. The overworked lungs throw part of their work on the liver, and the overworked liver on the kidneys. But the overworked brain finds no helpmate in the economy of the organism." Lest one appear to judge rashly, let us look more closely to the record.

Torquato Tasso, whose *Jerusalem Delivered*, alone ranks with the *Paradise Lost*, the *Iliad*, and the *Divina Commedia*, the four great epics of mankind, was born in 1544, and was the son of the poet, Bernado Tasso. To scan his life in a few lines, his young brain was tutored with Greek and Latin at seven years. At seventeen he had written an epic. It was in 1565 that he met Lucretia and Leonora, sisters of the Duke of Ferrara, at the court. With them he lives in close friendship, and for them he entertains the loftiest admiration. While at the ducal court, he hears that his great poem has been published by stealth in an Italian city, without his authority or the corrections he designed. This unmans him; he imagines himself pursued by enemies, and even draws his sword upon the peaceful servant of the Duchess of Urbina. He is arrested, but his condition speaking for itself, is given to the care of a physician. Soon he grows worse—he leaves even his beloved manuscripts behind and flies. By and by he begs to be allowed to return; but the evil returns, and he once more roams away to Mantua, Padua, Venice—everywhere fleeing an imaginary pursuer. At last he ventures again to Ferrara, and no one noticing the poor wretch, he abuses the Duke in the presence of his court. For this he languishes long years in a prison cell at St. Anne's Hospital, while all through the Italian peninsula, six editions of his wonderful poem are enriching the publishers and delighting the people to such a pitch that, until this day, the very peasants know and repeat his musical stanzas. Seven years of dreary confinement ensued long after apparent restoration; but the malady recurs at Florence, and also at Rome. For just as he had reached the fruition of his hopes, and by a solemn act, the Pope had decreed his cornation with the poet's laurel on the 25th of April, 1595, that very day the exhausted frame succumbs, and the garlands of honor fall upon the brow of death.

In tracing the history of extraordinary men who have lived in extraordinary delusions, Emanuel Swendenborg must not be forgotten. This celebrated philosopher, a geologist and man of scientific learning, filled many offices of distinction in Sweden, from which he voluntarily retired when, as he says, he was introduced to the spiritual world while in London in 1743. For about thirty years he spent his time alternately in Sweden and England holding converse, as he believed, with heavenly spirits and receiving their revelations. He imagined that he maintained long conversations with the most eminent of the dead of antiquity. He described with minute detail the form and fashion of the abodes of blessed saints in Heaven, and his works fill many volumes. In private life he was honest, learned, virtuous and a profound thinker. These revelations were received while he was in long bodily trances. He died suddenly of apoplexy, in 1772. You say, perhaps, that he only differed from other lunatics, by a purer life and more intense mentality, and has long been forgotten. No, indeed; his church is to day one of the recognized religious denominations of this country, and there are edifices for Swedenborgian service, in many of the largest and most intelligent cities of the United States. Some of his prophecies have been regarded as wonderfully correct, such as predicting a great fire at Stockholm at the very hour of its occurrence. But to one who would enquire farther, it is only necessary to say, that angel and saint and demon, all talk in his books, as ordinary men of the eighteenth century did, and all the minute explanations of natural phenomena, alas, are based only upon the rude conceptions of a century ago, and none

of his revelations anticipated the truth even as it is known to-day. Yet, to this day a million or two of people are enthralled by the fascination of a maniac's dream!

I approach the name of the Colossus of English literature with profound reverence. Never was the truth more deeply illustrated that the mind's great powers lie behind, and beyond and immeasurably above the miserable accidents of bodily organization; and yet never was the dividing wall that in the play of fitful disease cuts off the communion of the nobler part, with fallen man, more sadly, but vividly displayed, than in Samuel Johnson. This great essayist, the formative artist of late English, the author of the exquisite *Rasselas*, the compiler of the first great Dictionary of our tongue, which has been a mine of wealth for all its successors,—Johnson, the good and great, who bore the ills of fate with such fortitude, maintained his integrity in the sorest temptation, and became the very arbiter of the tongue he spake, by universal consent, *him* we have known; but how is our sympathy increased when we know his inner life! It is full of lessons to illustrate what I would say.

His father was beyond fifty and his mother over forty when they were married. The father was afflicted with melancholy, and only saved from absolute insanity by constant horseback exercise. With a sedentary life, he at once relapsed. Samuel was himself scrofulous, and was even taken to London, prayed over, and touched by Queen Anne, but unfortunately it was of no avail. He was blind in one eye, the result of his disease, and subject from his earliest years, to moods of the deepest gloom. We are told by his biographer, in significant language, that "his malady broke out before he left the University, in a cruel form." In his twentieth year, it came upon him in a dreadful manner. It happened at Litchfield in the college vacation of 1729, and he was never perfectly restored. He declared long after, that all his labors and enjoyments were "mere interruptions of its baneful influence." Sometimes he was unable to tell the hour by the clock. He walked to Birmingham and back again, frequently, in hope to drive away the malady by forcible exertions. He placed his medical supervision in the hands of his godfather, Dr. Swinfen, and was mortally offended when the Doctor revealed the truth to his own daughter. Again and again, he touchingly laments his constant hovering upon insanity. In writing of the unfortunate poet, Collins, who was in confinement, he says "Poor Collins! I have often been near this state, and have it therefore in great commiseration."

He would place his hand on all the posts set by the sidewalk in the streets, and if by chance he missed one, he was unhappy until his steps were retraced. He would shut himself up for days, to walk from room to room sighing and groaning; to go out of doors, he must take a certain number of steps, and with a certain accustomed foot, in a definite place. His grimaces, gestures, and mutterings terrified strangers. At a dinner table, he would stoop down, and twitch off a lady's shoe. He would conceive an aversion to a particular street, and could not be induced to walk there. The poet, Christopher Smart, it is well known, who was afterwards committed to an asylum, exhibited his mental disturbance, by falling on his knees to say his prayers in the street. Like him, Johnson would suddenly call out sentences of the Lord's Prayer while in a crowded drawing-room, and in the gayest company. With senses morbidly asleep, and imagination morbidly active, his life was one long torture. Many a man, so wretched, would have shot or hanged himself. He had the appetite of a beast of prey; were the meat spoiled or the butter rancid, so much the better; he would devour until the veins of his forehead swelled to repletion. Hallucinations of hearing pursued him; miles away, again and again, he thought he could hear his mother call him by name.

Yet he struggles manfully; he feels that he is lost, unless by stern self-control, he may stay the on-rushing tide. He drinks less wine, and never at night any more; he struggles to moderate his appetite; seeks exercise and keeps his mind busily employed. He marries a widow as old as his own mother, short, fat, coarse in manners and in features, painted, deeply dressed in gaudy colors, and void of grace. But, with his one eye, and that short sighted, he pronounces her lovely, is a true and

loving and noble husband, and long after he buries her in her sixty-fourth year, speaks of her to his friends, as "Pretty creature!"

He writes *Rasselas* for a hundred pounds to defray the expenses of his mother's funeral. As the years go by, oblivion creeps over, and he is wrapped in complete idleness and despondency. When in Kent, September 18th, 1768, he writes: "I have now begun the sixtieth year of my life. How the last year has been passed, I am unwilling to terrify myself with thinking. I was disturbed at church this day in an uncommon degree, and my distress has had little intermission. This day it came into my mind to write the history of my melancholy. I know not whether it may not too much disturb me." Eight years after, he writes: "When I survey my past life, I discern nothing but a barren waste of time, with some disorders of body, and disturbances of mind very near to madness, which I hope He that made me will suffer to extenuate my many faults."

He had the gait of one in fetters; his habits were uncouth, voice loud and imperious, temper violent, with a great readiness to take offence. He advises Boswell against melancholy in these words, good for all times, "If you are idle, be not solitary; if you are solitary, be not idle."

He loved poor Savage, another wretched poet and unhappy man of genius. The wildest romance would barely equal this man's real fate. As a famous writer says: "An Earl's son, and a shoemaker's apprentice, he feasted among blue ribbons in St. James' Square, and lay with fifty pounds weight of iron on his legs in the condemned ward of Newgate. He dined on venison and champagne when he might borrow a guinea; to-morrow he appeased the rage of hunger with scraps of broken meats, and lay under the piazza of Covent Garden, or as near as he could get in the ashes of a glass house." When the sons of misfortune parted, it was in tears—Johnson to his long internal strife, Savage to die heartbroken, in the west of England, in Bristol jail.

In 1784, Dr. Johnson left his friends at Litchfield one morning, and set off at an early hour, returning at night weary and drenched with rain. There was a silence—no one ventured to ask the reason. After a solemn pause, he said that fifty years before, during an illness of his father, he had refused that father's request to ride to Uttoxeter market and take his accustomed place at the stall where he sold books—all out of boyish pride. To do away with this sin, he said, that day he had gone, and, indeed, had stood in the market place bareheaded in the pelting rain for one hour, before his father's ancient stall, exposed to the jeers of the populace, performing solemn penance in the sight of heaven. Monumental marble now represents him in that act of filial devotion. The end was soon to come—rapidly recurring fits of anger and melancholy are succeeded by a stroke of paralysis; for a week he cannot speak and cannot write. Dropsy, so common with the insane, closed the scene. The next year, December 13th, 1784, the fatal moment which had been unutterable dread all his life, came to find him in serene frame, patient and gentle, his noble mind, his true self, ready for translation to a world of peace, with the dark clouds of a lifetime rolled away forever.

To be Continued.

"HARMLESS DELUSIONS."

The death of Mr. Malcolm Douglas, one of the proprietors of the *Chelmsford Chronicle*, by jumping, or throwing himself, from a railway carriage, having contrived "to elude the vigilance of his attendant" while under treatment for "harmless delusions," draws attention once more to a delicate and difficult question. The notion that *any* delusion can be *harmless*, when regarded as an indication of the mental condition, is among the most perilous of misconceptions. It may not appear of much moment that a poor man imagines himself a millionaire, or an "otherwise rational" person believes that he has made a discovery which, when it comes to be known, will relieve most mundane sufferings, and probably usher in the millennium. There are not wanting instances of wondrous delusions which have been cherished with impunity, and, so far as the public are aware, without working any particular social mischief. Nevertheless, the mind that has begun to delude itself is no longer to be trusted, and it is a matter of pure chance

whether the form in which its derangement is manifested may be confined to mere childish conceits, or suddenly perhaps assume a disastrous tendency.

When visiting Bethnal House for the purposes of the report which recently appeared in the *Lancet*, the *Lancet* Commissioner on Lunatic Asylums had more than one opportunity of observing the condition of Douglas. He was clearly in the early stage of that fatal disease known as the general paralysis of the insane—a malady which is so commonly overlooked, or misunderstood by the profession, because, as a rule, only one or two small muscles of the larynx, the nose or the upper lip—or the eyes—are for a long time affected, and when seen in the earliest stage the invading malady expresses itself by twitching or faltering rather than inaction. The case of Douglas attracted special attention, as offering an interesting proof that the wildest notions of the insane are coherent. He had translated a poem, and interpolated something about somebody's pills. When asked why, he said it was simply done as a literary joke to enliven his paper. The subject was the Pilgrim. He was asked why he had not played on the word *grim*, the first syllable, *Pil*, having obviously suggested the supposed pleasantry—wandering thought as it was in fact. He seized upon the suggestion, which had not apparently previously occurred to him, and, seemingly gratified on finding a decent excuse for his literary escapade, promised to adopt it. Douglas was an exceedingly intelligent man, but manifestly the subject of an insidious and dangerous disease. The notion of his being treated for "harmless delusions" was absurd in the extreme. The vain imagination that delusions may be harmless generally lies at the bottom of these neglected and too often fatal cases. The error cannot be too pointedly exposed.—*London Lancet.*

Administration of Chloroform.—In the accounts of deaths from chloroform recently reported, it is said in almost every instance that a piece of lint once folded or a fine handkerchief was used. In the Glasgow Royal Infirmary the chloroform is always dropped on a thick towel, folded at least four times, and with them death from chloroform is almost unknown.—Letter from S. to *Brit. Med. Jour.*

Translations.

Treatment of Convulsions in Children.

From the Revista Medico-Quirurgica of Buenos Ayres.

M. Blachez, in charge of the Supplementary Children's Clinic, laid down in one of his last lectures the following rules of conduct which ought to guide our practice in these cases :—

If the attack is single, and shows no signs of recurrence, the physician ought to content himself with calling hygienic measures into force, such as proper conditions of ventilation, etc.

If the attacks are persistent, or repeated at short intervals, revulsives should be employed, running over the whole of the lower limbs, and applications to the temples of compresses wet with cold water, or water mixed with ether.

At the same time it is right to employ compression of the cartiods, recommended by Trousseau. By this means the improvement commences in two or three minutes, and if after this time it does not manifest itself in a very evident manner it will be useless to persist in it. Then it will be convenient to have recourse to inhalations of chloroform, given gently, and never in a rough manner, it being here more important than ever to remember the sage precept of allowing the air to penetrate, mixed with the vapours of chloroform. In certain cases there may be some special indication to fulfil, as, for example, the administration of an emetic, if it is well established that indigestion is the cause of the convulsion.

Once the attack subsides, it is necessary to modify the general eclamptic tendency, by having recourse to antispasmodic remedies. There is need for much prudence and no lack of importance in the dose which is ordered. In a child from eight to fifteen months the powder of gentian ought not to exceed thirty centigrammes, and in children of seven years not more than fifty, always beginning with five centigrammes. The maximum dose of belladonna powder would be about ten centigrammes, beginning with one and gradually increasing. In the administration of this substance it is necessary to exercise the closest observance of the throat and pupils. The oxide of zinc in doses of ten centigrammes every two hours, and the same of James' Pow-

der, in which M. Blachez does not recognise any special advantage. For the fulfilment of all the indications the bromide of potassium and the hydrate of chloral are preferable. Of the first ten to twenty centigrammes every two hours until fifty or sixty are reached in a child of the first-named age, and two or three grammes in one of seven years. In case the effect of the medicine has not become apparent in twenty-four hours the dose must be increased. The bromide of potassium mixed with the chloral gives the best results, the dose of this last being twenty-five centigrammes in the infant, and fifty in the older (child).—*Crónica Médico-Quirúrgica de la Habana.*

Note on the Pathological Anatomy of the Facial Paralysis of the Newly-Born Consequent on the Application of the Forceps.

From *Le Progrès Médical.*

MM. Parrot and Troisier publish a note on the pathological anatomy of the facial palsy of the newly-born consequent upon the application of the forceps. They have had an opportunity at the Hospital "de la Rue d'Enfer" of making a post mortem examination of three infants who presented this lesion. In these cases, as in all those in which the nerve is divided in its continuity, whether by transverse section, or by ligature where the compression has been sufficiently strong to disorganize it, the peripheral extremity presents a progressive alteration which eventuates in the disappearance of the myeline and of the axis-cylinder. Then follows in the altered nerve a restoration of all the elements which had disappeared or been affected; and in a very short time (forty to sixty days) it has recovered its normal structure. A remarkable fact is the existence, at the site of the stylo-mastoid foramen, of a line of demarcation, very distinct, between the exterior portion of the nerve, which is the seat of the lesions, and the cranial portion which has preserved an absolutely normal appearance. There had been, therefore, compression of the nerve at the site of the stylo-mastoid foramen by a blade of the forceps, and the paralysis might even be limited to one-half, upper or lower, of the face, if the compression had only been upon one of the branches of the facial nerve. As a consequence, there follows a simple atrophy of the muscles supplied by the nerve. But the muscles undergo, like the nerves, a complete regeneration, which explains the trifling nature of facial palsies consequent on the application of the forceps: these palsies are always recovered from.

Treatment of the Hyperpyrexia of Acute Articular Rheumatism.

From the *Gazetta Medica Italiana.*

In some cases of acute articular rheumatism the febrile movement has been remarkable for a rapid, instantaneous increase of temperature, with grave cerebral phenomena (which, in France especially, is frequently called "cerebral rheumatism"), and which tends to a speedy dissolution. Brand and Meding formerly described a case of similar nature, which, thanks to cold compresses and frequent bathing, terminated in recovery. Wilson Fox, in England, has observed two cases with successful issue: in one the temperature reached 43·3 centigrade; in the other 41·8. In these cure was effected by the energetic employment of external refrigerant measures, together with the internal use of powerful stimulants. According to the three authors just mentioned, this method of treatment has been tried by many other physicians, and in every case with a satisfactory result. Prof. Heubner has observed another of such cases, in which, in spite of its fatal termination, there was still reason to note how the refrigerant and stimulant treatment could prove of service in the hyperpyrexia of rheumatism.—From *Il Morgagni.*

The Hydrate of Croton Chloral as an Anæsthetic.

From the *Revista Médico-Quirúrgica* of Buenos Ayres.

At a meeting of the Society of Biology, on the 6th of May, M. Chouppe communicated the results of his experiments with croton chloral as an anæsthetic, summing up in the following conclusions:—

1st. The hydrate of croton chloral, employed in intravenous injections, produces an anæsthetic sleep much more rapidly, and in smaller

doses than the hydrate of chloral. Comparing the effects of the two substances in two different individuals, it is seen that fifteen grains of croton chloral produces the same anæsthetic effect as forty-five grains of chloral.

2nd. The anæsthesia is as profound as that produced by chloral.

3rd. The intravenous injections of croton chloral appear less immediately dangerous than those of chloral, but M. Chouppe is not in possession of sufficient data to compare their ulterior effects.

M. Trasbot says that he has often found pulmonary hæmorrhages in horses arrested by the intravenous injection of chloral or chloroform. M. Gallipe drew attention to a late assertion of Liebreich, to the effect that chloral produces an anæsthesia of the head before the rest of the body, and that it is always more noticeable in that part.—*Gazzetta Médica da Bahia.*

Sugar in the Blood.

M. Abeles (Der physiologische Zuckergehalt des Blutes), in *Wien. Med. Jahrb.*, 1875, p. 269, found that sugar was present in the blood of all regions of the body of the dog in not inconsiderable quantity, averaging 0·05 per cent. He showed that this existed in the form of grape sugar by its action in reducing copper oxide and bismuth; by fermentation; by its circular polarization to the right, and by the properties of its combination with alkalies. The arterial blood contained on the average 0·047 and the venous 0·053 per cent. of sugar. The blood of the right heart and of the vena cava just after the junction with it of the hepatic vein, showed no perceptible difference in the amount of sugar they contained, which was opposed to the view that it was derived from the liver.—*Brit. & For. Médico-Chir. Rev.*

Treatment of Acne with Sand.

Dr. Ellinger strongly recommends frictions of the skin with fine sand in the treatment of comedo and acne of the face in young children. The sand should be regular in grain, not dusty or lumpy. Before the friction the skin must be thoroughly washed with soap and water. It is then to be kept damp for half an hour, and, finally, the affected parts are to be rubbed for a short time with the sand, which is to be used slightly wet, afterwards any adhering sand must be sponged away. The same method is applicable to certain cases of psoriasis, eczema, lichen, acne rosacea, and freckles. If the eruption be situated on the trunk or limbs, each friction must be preceded by a prolonged use of a moist compress on the part.

Veratrum as an Antidote to Opium.

From the *Gazetta Médica Italiana.*

Dr. Todd thinks that veratrum shares with belladonna the property of acting as an antidote to opium. He refers to these facts for proof:—Four cases of opium-poisoning recovered under the influence of hypodermic injections of veratrum; in one of these patients atropine had been tried without effect. One of the two who died had taken an extremely large dose of the poison, and there had elapsed too long a space of time between the ingestion of the opium and the administration of the veratrum, to hope for recovery. Death, however, appeared to be manifestly delayed by the antidote. In less than six hours this patient received, by hypodermic injection, four grammes of the tincture of veratrum viride, without depression of the pulse; on the other hand, the veratrum seemed, in this case, rather to sustain than enfeeble cardiac action. The second that died was a child of thirteen years, suffering from meningitis, to whom morphia had been administered up to the point of producing symptoms of poisoning. These disappeared under the influence of the cold tubing and three injections, of three drops each, of the tincture of veratrum viride; death occurred later, but from the effects of the meningitis, and not from the toxic action of the opium. . . . . From *Riv. Clin. di Bologna.*

For Colliquative Sweating.—Sponge with hot vinegar, and give one-hundredth of a grain of atropia hypodermically.—*Vir. Med. Monthly.*

For Priapism.—Twenty drop doses of tincture of veratrum viride at bedtime.—Dr. Gibbons, in *Pac. Med. Jour.*

THE CANADIAN

Journal of Medical Science,

A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor.*

TORONTO, APRIL, 1877.

CANADIAN DIPLOMAS.

We are glad to learn that the obnoxious resolution of the Board of Trade in London with reference to Canadian graduates not registered in England acting as surgeons on the Allan Line of Steamships has been rescinded. Apropos of this the following extract from the London *Lancet* will be gratifying to Canadians :—

A CANADIAN GRIEVANCE.

The *Medical and Surgical Journal*, published in the Dominion, in its issue for February, deals at considerable length with the ineligibility of surgeons other than those possessing British qualifications for appointments on board emigrant and passenger ships sailing from British ports. It strives, and we think successfully, to show that the educational tests by which admission is gained to the profession are as comprehensive and exacting in Canada as those imposed in England, and submits that Canadian surgeons holding qualifications equivalent to those conferred at home should not be excluded from serving on board vessels which are identified with the progress, enterprise, and wealth of the colony—vessels that are performing the passenger traffic of the colony, that are subsidised by the Government of the colony, that carry the mails of the colony, and are in every way colonial vessels, except in being registered as British ships. Our contemporary winds up by quoting a letter written by Sir Hugh Allan, of the firm of Allan Brothers, Liverpool (whose steam-ships are as fine as any on the sea), in which that gentleman stigmatises the requirements of the Board of Trade as unjust and a slight upon the Dominion. We believe that the Canadian Government will be asked to make a representation on the matter.

THE LATE DR. HAMILTON.

A special meeting of the Hamilton Medical and Surgical Society was held at the Royal Hotel, on Saturday, the 3rd inst., at which the following resolutions of regret and sympathy were unanimously concurred in by the members present :—

Moved by Dr. Rosebrugh, seconded by Dr. Case :

"That the members of the Hamilton Medical and Surgical Society, having heard of the decease of their late brother, Dr. Hamilton, of Flamborough, desire to express their great regret at the loss which the profession and the community have sustained by the death of one who has been so long a faithful and worthy practitioner, and a useful citizen."

"That this Society tender their sincere sympathies to the bereaved family of our brother."

"That this Society do attend, in a body, the funeral of our deceased brother."

"That the Secretary be instructed to forward a copy of these resolutions to the family of the deceased, and also a copy for publication."

PERSONAL.—On the occasion of Dr. W. F. Coleman, late Surgeon to the Eye and Ear Infirmary, removing from Toronto to St. John's, New Brunswick, he was entertained by his medical friends in the city and presented with an address expressive of the high position he has held in their estimation, and wishing him all success in the new field of his labours. Dr. Coleman has been for some time in practice with Dr. Rosebrugh, and has lately returned from Vienna, where he spent several months studying Ophthalmic and Aural Surgery, to the practice of which he intends devoting himself exclusively. We cordially join in the address presented to him, and hope that the success which will meet him in St. John's will equal his merits.

SEABURY AND JOHNSON.—On our last page will be found the advertisement of this large and successful firm. From the award of the Jurors' at the Centennial Exhibition, they must be unequalled for the *originality*, *reliability*, and *general excellence* of their manufactures. The members of the firm are practical pharmacists and chemists, and manufacture in the most approved and practical form the most extensive line of plasters ever produced.

BOOKS AND PAMPHLETS RECEIVED.

Clinical Notes on Small Pox. By WILLIAM OSLER, M.D.

Annual Report of the Asylum for Insane, Toronto, for the year ending 30th Sept., 1876.

Annual Announcement of the Medical College of the Pacific. Session of 1877.

Milk Sickness. By W. H. PHILLIPS, M.D. Reprinted from the *Cincinnati Lancet and Observer.*

Fifty-first Annual Report of the Massachusetts Charitable Eye and Ear Infirmary for the year 1876.

Relations of Medicine to Modern Unbelief. A Valedictory Address by RICHARD O. COWLING, A.M., M.D. Reprinted from the *Louisville Medical News.*

A Case of Progressive, Pernicious Anæmia. By WILLIAM GARDNER, M.D., and WM. OSLER, M.D., L.R.C.P., Lond. Reprinted from *The Canadian Medical and Surgical Journal*, March, 1877.

The United States Pharmacopœia and the American Medical Association.

This pamphlet will be sent to any physician who will enclose address and a three cent stamp to Dr. H. C. Wood, 1631 Arch Street, Philadelphia.

A Directory for the Dissection of the Human Body. By JOHN CLELAND, M.D., F.R.S., Prof. of Anatomy and Physiology in Queen's College, Galway. A. Piddington, 248 and 250 Yonge-street, Toronto; H. C. Lea & Co., Philadelphia. 1877.

Webster's Unabridged Dictionary, the advertisement of which appears in another column, has reached such a high position in the estimation of everyone, and is so well known, that comment from us is scarcely necessary. We can highly recommend it to anyone wishing a complete dictionary for reference on all subjects.

ALCOHOL.

The "world" is in "a pet of temperance," and a very good "pet" it is, and one that shall have no discouragement from us. The party which has the great credit of having roused British opinion to some adequate sense of the urgency of this question is disposed to show no quarter to the article alcohol. It is only evil, in every form, to all persons, of all ages. It in no way helps in the removal of disease. Syncope, hæmorrhage, fever, the ordeal of great operations, are no justifications for administering it, for do not persons emerge from all these states all the more quickly and surely when alcohol in every form is withheld? If it be said that these are the views of only lay persons, or of uninfluential and unscientific physicians, it is not so. At this very conference Dr. Richardson summed up his researches by saying that in its action on the living body alcohol "deranges the constitution of the blood, unduly excites the heart and respiration, paralyses the minute bloodvessels, increases and decreases, according to the decree of its application, the functions of the digestive organs, of the liver, and of the kidneys, disturbs the regularity of nervous action, lowers the animal temperature, and lessens the muscular power." This is not a soft impeachment, proceeding as it does, from one who has studied "alcohols" in all forms more perhaps than any physiologist or physician living. Perhaps, it may be said, he has some qualification to offer, some good effects to set off against these bad ones. Let us hear the witness on this point. "It will be asked, was there no evidence of any useful service rendered by the agent in the midst of so much obvious bad service? I answer to that question that there was no such evidence whatever, and there is none."—*Editor London Lancet.*

Meetings of Medical Societies.

WESTERN AND ST. CLAIR MEDICAL ASSOCIATION.

The annual meeting of this Association was held on Thursday, 1st instant, at the Rankin House. A short session took place in the forenoon, Dr. J. L. Bray, the President, in the chair; Dr. T. K. Holmes acting as secretary *pro tem.* There were also present Drs. Fleming, Murphy and Abbott, from Chatham; Drs. Carney, of Windsor; Smith, of Morpeth; Hicks, of Duart; Richardson, of Blenheim; and Dr. Tye, of Thamesville. After the proceedings of the last meeting had been read and approved the session closed.

After recess the following gentlemen were elected officers of the Association for the ensuing year:—

President—Dr. A. McLean, of Sarnia.

Vice Presidents—Dr. D. Fleming for County of Kent; Dr. Casgrain, of Windsor, for Essex; Dr. Poussette, of Sarnia, for Lambton; and Dr. Thompson, of Strathroy, for Middlesex.

Secretary—Dr. Holmes.

Treasurer—Dr. Tye.

In the absence of the newly-elected President, the chair was taken by Dr. Fleming, Vice President. Various items of routine and business were disposed of. The formation of County Associations was taken up, and resulted in a passage of a resolution instructing the Secretary to prepare a series of questions, such as he may deem necessary, to be forwarded to each of the Vice Presidents, who will communicate the same to the qualified practitioners in each County with the view of eliciting opinion as to the desirability of forming County Associations, the replies to be reported to this Association at the next meeting. Dr. Richardson, of Blenheim, read an able and instructive paper on "Thermometry in Disease." This was fully discussed, and the invaluable aid of the thermometer in forming a diagnosis of a disease was unanimously assented to. Dr. Richardson was awarded a vote of thanks by the Association for his excellent and carefully prepared paper.

Telegrams were read from various members regretting their inability to be present.

Dr. Murphy read a paper on "The use of Cold Affusions in restoring the Normal temperature in Malarial and other Diseases." This paper was also well received, and although opinions somewhat differed as to the time when the bath, as a remedial agent, should be used, yet all were agreed as to its importance. The discussion on this paper evoked the opinions of all present. Its general features were in harmony with the opinions advanced by the Secretary, Dr. Holmes, in his paper on "The treatment of Convulsions depending on a high Temperature of the Body," read before the International Congress of Medical men held in Philadelphia last summer.

The notes taken of a case most interesting to medical men, one of "Placenta Previa," occurring in the practice of Dr. Hicks, were of unusual interest.

An opinion of Mr. John A. Mackenzie, of Sarnia, as to the legality of electing a President other than the representatives at the Provincial Medical Council was read and received the endorsation of the Association.

The Association reaffirmed the resolution passed a year ago requesting the Medical Council to appoint an examiner (Dr. Holmes was named) from the Association, the practice hitherto being to choose examiners from among the Council only.

The Association adjourned to meet at Winsor next May.

At the Meeting of the Obstetrical Society of London, held on February 7th, Dr. Elkington, of Brockville, Ontario, mentioned a case of spontaneous inversion of the uterus. Labour was natural. On the third day the uterus became suddenly inverted, owing, apparently, to the exhibition of a large dose of castor oil. It was easily reduced, and the patient did well. The author thought that an equally-distributed pressure on the fundus of the uterus after expulsion of the placenta, occasionally gave rise partial inversion.

Small-pox Amongst Goats.—Small-pox has appeared in an epizootic form among the flocks of goats near Los Barrios, Gibraltar, and orders have been issued to prevent the entrance of goat milk or flesh from the infected districts into the garrison. Meantime the outbreak is the subject of a special enquiry.

Miscellaneous.

In a very voluminous sarcomatous tumour of the breast, over the surface of which was spread a rich network of veins, terminating in two large trunks opposite the clavicle, M. Mollière ligatured the two trunks to avoid exhausting hæmorrhage. No ill consequences followed.—*Lyon Médical.*

At the meeting of the Surgical Society of Paris, on the 10th of January, M. Horteloup showed two salivary calculi which he had extracted from "Wharton's Duct," and which presented this peculiarity: that their large extremity was directed towards the buccal cavity.

An Octave of Triplets. — The *Lyon Médical* relates the case of a married woman living in Paris who has just given birth to a triplet, comprising her twenty-second, twenty-third, and twenty-fourth children. This woman, in the course of her married life of nine years, has given birth to twenty-four children, all born three at a time and in perfect health. Unfortunately for the husband, who is desirous to transmit his name to posterity, this remarkable family party consists entirely of girls.

Dr. Gurdon Buck, of New York, died on the 6th of March, from Bright's disease, at the age of 70 years. He was a very notable surgeon, and was also the author of many improvements in surgical apparatuses. "His method of treating fractures of the thigh by the weight and pulley was at once recognised by surgeons throughout the civilized world as the establishment of an original principle of the utmost value" (*Med. Record*). His chief successes, however, were in auto-plastic surgery; and he published a work, within the last year of his life, entitled, "*Contributions to Reparative Surgery.*"

New Anæsthetic Agent. Rabuteau, in a memoir read before the Académie des Sciences, states that he has investigated the physiological properties and mode of elimination of hydrobromic ether. He has satisfied himself that this anæsthetic agent, which possesses properties intermediate to those of chloroform, bromoform, and ether, might be advantageously employed to produce surgical anæsthesia. The hydrobromic ether is neither a caustic nor an irritant. It can be ingested without difficulty; and applied without danger, not only to the skin, but to the external auditory meatus and to the mucous membrane. It is eliminated completely or almost completely, by the respiratory passages, in whatever way it may have been introduced into the system.

Treating Blisters by Osmosis.—M. Ungerer recently saw an extensive scald, which had for twelve hours been treated with cold water without relief from the agonizing pain, or reduction of the swelling. The experiment of immersing the limb in a saturated solution of salt was followed by most surprising relief. The abatement of the pain was immediate, and in four hours both the pain and swelling were gone. The next day the hand differed from the other only by a very slight swelling and redness.

Chloroform in Hæmoptysis.—We extract from the *Lyon Médical* and the *Journal de Thérapeutic* the following paragraph giving a remarkable result obtained from the application of chloroform. A man, forty years of age, suffering from tuberculosis in an advanced stage, was seized with hæmoptysis which could not be arrested with ice, with turpentine, with ergot, and the application of heat and sinapisms to the extremities. Doctor Alex. Weir, seeing that his patient would soon succumb, had recourse to the local application of chloroform. Upon a piece of flannel of the dimensions of the affected part he poured two ounces of this liquid, applied it immediately to the chest, and covered it thickly with several layers of clothes to prevent its evaporation. The effect was instantaneous, the cough and the hæmorrhage ceased immediately and in a definitive manner. This man, who was addicted to drink, died later on, while on a drunken spree, with a tremendous hæmorrhage, which was instantly fatal. Dr. Weir is of the opinion that the chloroform here acted as a revulsive—we are of the same mode of thinking.—*Tribune Médicale.*

MODERATE DRINKING.—Sir Henry Thompson presided Wednesday night at a public meeting in Exeter Hall, called by the National Temperance League to discuss the question of moderate drinking. Sir Henry Thompson said he doubted whether in many cases, or perhaps in any case, alcohol was valuable in the dietary of healthy people. Indeed, he was not quite sure that to a great many people it was not injurious. He believed that alcohol had a certain value to the human body under very exceptional circumstances, but upon this fact he founded one of the strongest arguments for not bringing it into our daily food. Alcohol acted as a stimulant to the nervous system, and might, for instance, enable a pedesterian who had suddenly broken down to go on and win his bet, although he thus drew a bill on the future. Dr. B. W. Richardson said that his experience of moderate drinking was that it was the moral mainspring of all the drunkenness in the land, and of all the crime to which it led.—*British Med. Journal.*

PEROXIDE OF HYDROGEN AS A DISINFECTANT.—The extraordinary powers of hydrogen per oxide as a disinfecting and oxidizing agent have been known for a long time, but the complicated and tedious method of its preparation has been a bar to its adoption on a large scale. Mr. Charles T. Kingzett, in conjunction with Mr. Zingler, have recently instituted some experiments, based on certain researches on the hygienic influences of the pine and eucalyptus trees, by which they ascertained that by exposing a mechanical mixture of water and turpentine to a current of air at normal summer temperature, a solution containing hydrogen peroxide and camphoric acid—the result of splitting up of the turpentine—may be readily obtained. The solution is an aqueous one, containing no oil of turpentine; it appears to be non poisonous, and is absolutely without harm to textile fabrics. It does not injure carpets or furniture when applied to them, and is slowly but perfectly volatile. It is hoped shortly to produce large quantities on a manufacturing scale, for use in watering roads and streets, and in private houses, hospitals, and other localities where prompt disinfectants are required. —From *Pharm. Jour. and Trans.*, Dec., 1876, 451.—*New Remedies.*

THE SUDDEN CHECKING OF OPIUM EATING.—The eminent Sir Robert Christison, after a large experience in the treatment of such cases, says that no good can be done by "gradual reduction," and that it can be safely left off abruptly, even after many years' indulgence. He recommends bromide of potassium to allay irritability, and chloral to procure sleep. For the first three days the patient suffers from great depression, loathing, sickness, and vomiting. By the fourth night he falls asleep and awakes refreshed, and in most cases the progress afterward is very satisfactory. There is, however, great danger of a relapse. Should diarrhœa supervene, suppositories of morphia should be ordered.

SALICYLATE OF SODA IN GOUT AND NEURALGIA.—The statements that have recently been made by several writers, that salicylic acid and salicylate of soda, when given in acute rheumatism, relieve the pain more certainly than the swelling, indicate the trial of these substances in affections where pain may be a chief characteristic. Dr. C. Cunzi *(Deutsche Zeitschr. für prakt. Med.)* recommends salicylate of soda as a means of rapidly relieving the pain of gout. In two cases of gout of the foot a single dose of one drachm was followed, in three hours, by complete cessation of the pain; the swelling, however, remained ten days longer. Dr. L. Hoffmann *(Berliner Klin. Woch.)* has found it remarkably efficacious in gout of the hands and feet, and relates successful cases of its use in sciatica, tic doloreux, and intercostal neuralgia. He recommends half a gramme to be taken in a gelatine capsule every hour.—*Br. Med. Jour.*

Births, Marriages, and Deaths.

MARRIED.

On Wednesday, March 7th, at the Manse, Beaverton, Charles Thompson Noble, M.D., to Ann, daughter of the late Robert Johnstone.

On the 27th of January, 1877, at St. Peter's church, Camberwell, John Lassells Potter. eldest son of Dr. Potter, of Romford, Essex, to Kate, youngest daughter of George Wordley, Esq., of Larkens Farm, Orsett, Essex, England.

DIED.

On the 9th inst., Wilhelmina, daughter of Dr. Aikins, aged nine months and twenty days.

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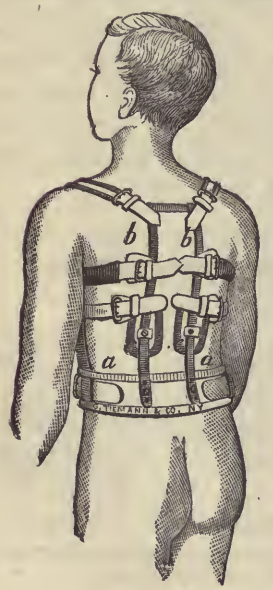

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TORONTO. MAY, 1877.

Selections: Medicine.

HEMIPLEGIA COMING ON WITHOUT LOSS OF CONSCIOUSNESS; DEATH; AUTOPSY; ATHEROMATOUS AND SYPHILITIC DISEASE OF CEREBRAL ARTERIES.

(Under the care of Dr. Hughlings Jackson.)

Syphilitic disease of cerebral arteries is recognised as a cause of thrombosis, and, therefore, as a cause of local cerebral softening. In this country attention was drawn to thrombosis of cerebral arteries from syphilis by Dr. Bristowe (Path. Soc. Trans., 1859), by Dr. Wilks (Guy's Hosp. Reports, 1863), by Dr. Moxon (ibid., 1867), by Dr. Hughlings Jackson (in our "Mirror," Oct. 27th, 1866, and London Hosp. Reports, vol. iv., 1868). The valuable remarks on syphilis of arteries, by Dr. Greenfield, at the Pathological Society, will be fresh in the memory of our readers.

The following case was the text of clinical remarks which are given with the report, and the case shows that we should not hastily conclude that because a patient is syphilitic, his hemiplegia is due to syphilis.

A man, sixty years of age, was admitted for perfect left hemiplegia, without any defect of speech, on Jan. 24th. The paralysis began fourteen days before; when out walking, the patient suddenly became giddy, and would have fallen had he not clutched a fence. He felt confused, but did not lose consciousness; he talked indistinctly. He was able to walk into his house. Next morning he was paralysed on the left side, but was quite conscious.

The mode of onset of the hemiplegia is most important. A deliberate onset without loss of consciousness points to local softening from blocking of some branch or of the trunk of the middle cerebral artery. At the very first the patient felt confused; that is to say, he had some slight, probably most trifling, defect of consciousness. There are all degrees of affections of consciousness, from that with the slightest confusion of thought to deepest coma. Moreover, the fact that the patient in this instance was giddy shows that there must have been some defect of consciousness. Vertigo, however produced, is always attended by some impairment of consciousness, trifling though that impairment may be; no one could add up a column of figures when giddy from any cause. When giddy, a man is not, as the popular phrase has it, quite himself, however slightly less himself he may be. Such a slight affection of consciousness is, however, for practical purposes, in a case like this, equivalent to no affection of consciousness, although scientifically we must recognise it. The absence of loss of consciousness in a case of such perfect hemiplegia as this patient had is very strong evidence towards the diagnosis of local cerebral softening. Indeed, cerebral softening is always local, and hemiplegia, with or without aphasia, is the great symptom of it; but hemiplegia, with or without aphasia, is a symptom of cerebral hæmorrhage, too; but then the onset is mostly by loss of consciousness or coma. Hemiplegia coming on without loss of consciousness points to local softening; hemiplegia, with loss of consciousness, to clot. Such is the rule of thumb; but, speaking carefully, the first mode of onset points to a lesion of comparatively little

gravity; the second, to one of much gravity. Within the term "gravity" are included two factors—(1) extent of lesion, (2) rapidity of lesion. Using terms metaphorically, we have to speak of the momentum of lesions, the factors being mass and velocity. If the lesion be very extensive, although not very rapid, there may be loss of consciousness, and if of little extent and very rapid, there may be loss of consciousness. Yet the rule of thumb is very valuable. So in this case, from the mode of onset, it was concluded that there was local softening, although, from the atheromatous state of the radial arteries, clot was a possible lesion; indeed, had the patient had chronic Bright's disease, clot would have been diagnosed, as the condition of which chronic Bright's disease is a part overrides the rule that hemiplegia coming on without loss of consciousness points to local softening.

But now comes the question, How was the softening produced? In a case of hemiplegia the question is, so to speak, Why did an artery get blocked? Arteries may get blocked by embolism or by thrombosis. Blocking by embolism is said to be sudden; but it is not always so; or at any rate hemiplegia will come on deliberately in young patients who have not atheromatous vessels and who have disease of the heart's valves. This man had no heart disease to point to embolism; his age pointed more to blocking from thrombosis; this and the atheromatous state of his radials pointed to thrombosis of an atheromatous cerebral artery as the cause of the softening. But we found decisive evidence of syphilitic taint; there was a node of the left tibia, and thus we suspected syphilitic disease of his cerebral vessels. Had he been young, and had his cerebral arteries, as inferred from the state of his radials and temporals, not been atheromatous, we should have concluded that the thrombosis was due to syphilitic disease. But plainly, in a man sixty years of age, with atheromatous arteries, this could only be suspicion.

He had much pain in the head, especially on the right side; he became gradually imbecile, and died comatose on February 22nd. At the autopsy we did find softening of the outer part of the right corpus striatum, of some convolutions of the temporo-sphenoidal lobe, and of some others in the district of the right middle cerebral artery. There was thrombosis of the main trunk of this artery. Now this vessel was, as were all the other cerebral arteries, very atheromatous. But the left middle cerebral artery was the subject of syphilitic disease; its sheath was thickened; the artery was slightly nodose, and of a grey-green, greasy tint. But, curiously, this vessel was not occluded; in the opposite vessel we discovered no syphilitic change. And even if we had, the atheroma would have been a sufficient cause for the thrombosis. This is a case then in which, even post mortem, we could not be sure that the hemiplegia was owing to syphilis.

The pain in the head was probably owing to a recent syphilitic osteitis of the right side of the skull, which was seen after death.

It is to be observed that the patient had no optic neuritis, a condition often found in cases of gummatous masses in the brain; there were no such masses in this case.—*London Lancet.*

THE MONOBROMIDE OF CAMPHOR IN MASTURBATION.

My attention has been recently called to the use of the "monobromide of camphor" in nervous and kindred diseases. I have since used it with happy results in a number of cases, and in many instances substitute it for the potassium bromide. I have found it, particularly in masturbation, a reliable and efficient remedy. One case I will record. W. F. P., male, aged twenty years, teacher. Consulted me in December last. Complained of weak memory, confusion of thoughts, nocturnal emissions, constant desire for sexual indulgence, and the many other characteristic symptoms of confirmed masturbation. Becoming alarmed, and realizing his condition, he confessed to having practised masturbation for a year or more. Had rather plethoric appearance, but nervous symptoms seemed prominent. I prescribed the usual remedies, with little or no benefit. I finally put him on four-grain doses of the camphor monobromide three times a day, with immediate and seemingly permanent results.

He now informs me that he feels well, and believes he is cured. A remedy containing such virtues, and so happily applicable to such a disease as masturbation, should merit prominence. These unfortunate young men are, as a rule, ignorant of the benefit they may receive from an intelligent physician, and easily fall victims to the nostrums of quack "institutes."—Walter N. Sherman, M.D.—*Med. and Surg. Reporter.*

CLONIC SPASM CURED BY LARGE DOSES OF ARSENIC.

G. D. Van Vranken, M.D., Saratoga, N.Y., writes to the *Medical and Surgical Reporter* as follows :—

"The article in the *Reporter* of November 18th, by Professor Mitchell, on 'The Effects of Large Doses of Arsenic in Chorea,' reminds me of a case of spasm which came under my care some time since, in which small doses of arsenic failed, and large ones were followed by a speedy cure.

"In June of 1872 I was called to a distant village to see Alice B——, nine years old, of nervous temperament and feeble constitution. Some ten weeks previous she had had a light attack of scarlatina. A few days after her recovery she was taken with severe pain in her right hand, which was soon contracted, and rigidly held for two or three days. Then the pain again became severe, during which the right hand was relaxed and the left closed. A few days, and the left leg was affected, first thigh, then ankle, and so on, the spasm shifting from place to place, after remaining stationary from three to ten days.

"Nor was the disease confined in its effects to the extremities, but for several days she was perfectly blind in her right eye, and for a time she stammered as badly as the most inveterate stammerer I ever heard. In sound sleep, the muscles were sometimes relaxed, but contracted again when she awakened. For three months I tried the remedies which I thought best to remove after effects of scarlet fever, and to cure spasm, viz., iron, quinine, strychnia, iod. pot., brom. pot., etc., with arsenic, in drop doses, three times per day, all of which proved comparatively valueless.

"I then resolved to push arsenic, and commenced with five drops of Fowler's solution, three times per day, to be continued until puffiness of the face was produced, or one-half ounce taken.

"In about two weeks her father wrote me, saying, 'Daughter's medicine gone. Has had no spasm since fourth day of taking it.' She has had no return of spasm, with health rather better than in previous years.

"Since this experience I have had no hesitancy in prescribing large doses of arsenic when clearly indicated."

Surgery.

CONTRIBUTIONS TO AURAL SURGERY.

BY W. B. DALBY, F.R.C.S., M.B. CANTAB.,
Aural Surgeon to St. George's Hospital.

FATAL CASES OF DISEASE OF THE MIDDLE EAR.

Although the occasionally fatal results which attend cases of perforation of the membrana tympani are well known to the profession, it is to the fact of this affection being so common that we must attribute the indifference with which a discharge from the ear is generally regarded by so many, and for the same reason the deaths which are due indirectly to perforation of the membrana tympani might be not inappropriately spoken of as accidents in the course of disease. From whatever cause arising, where once the tympanum has become the seat of inflammation, and pus has made for itself an exit through the tympanic membrane, if the perforation does not heal within a few weeks, the prospect of closure ever taking place is very remote. The condition then arrived at in the ordinary course of events is that the cavity of the tympanum becomes a surface subject to suppuration, and discharging more or less, or ceasing to discharge, according to surrounding circumstances. Given a large number of persons with perforation of the tympanic membrane, it admits of no question that a certain proportion of them will die from inflammation of the brain or its membranes, and that others will die of pyæmia. It may be true enough that every physician and surgeon to a large hospital has these facts sufficiently often brought before his notice to be familiar enough with these cases as soon as he meets with them; still, it cannot be too often repeated that a tympanic membrane whose perforate condition may date from infancy, and be the source of an occasional purulent discharge till advanced life, can at any time during this period of life be the indirect cause of a rapidly fatal affection, until the surprise which death from this cause creates is replaced by greater attention to the condition of the ear. Even then, with every precaution, a few cases, though far less than heretofore, will, I believe, terminate fatally.

Considerably more notice to this subject has this year been directed by papers in some of the journals, and especially in reference to its bearing on life assurance by Dr. Cassells, of Glasgow, and others, confirming the opinion which I expressed on the matter in *The Lancet* for 1872, as follows: "I believe that a discharge from the ear is regarded by insurance companies as an element against granting a policy, or, at any rate, demanding an increased premium. I can only say that, if it is not so regarded, it would be if the companies consulted their own interests."

There would appear to be two almost distinct divisions in these cases—viz.: the first, in which the fatal symptoms make their appearance soon after the attack of inflammation in the tympanum and rupture of the tympanic membrane; the second, in which the symptoms do not appear until the discharge from the tympanum (and sometimes the mastoid cells) has become chronic. In the first, I believe, must generally be placed the unavoidable deaths; in the second, those in which care and appropriate treatment will oftentimes place the patient in a position of safety.

During the past year three most noticeable instances of those in the first division came under my notice: one, where an elderly gentleman died of meningitis within a few weeks from the time when the tympanum became the seat of inflammation; another, where the same course of events occurred to a middle-aged man; and a third, in which a young boy died from pyæmia, the first rigor happening before I saw him, and a few days only after the tympanum became inflamed. However grave these cases may be, nothing of especial value would be gained by relating them in detail. But the other division cannot fail to be of great surgical interest. In this the local condition of the ear generally met with will include complete or nearly complete loss of the tympanic membrane, the tympanum being in each instance a suppurating cavity, the surface of whose lining membrane is either studded with exuberant granulations, or is the origin of a polypoid growth, which completely fills it, and in some instances protrudes into and beyond the external meatus. Occasionally added to this will be found a bony growth, a so-termed exostosis, in the meatus.

A more perilous condition than some of these complications entail can hardly be conceived—how perilous is sufficiently well attested by the number of deaths which take place from meningitis and pyæmia induced by this state of things. At the present moment, however, I desire especially to direct attention to how the fatal termination may often be prevented, and shall probably best illustrate this matter by relating briefly the following:

Case 1.—In Oct., 1874, I saw a middle-aged lady who had for many months at times been subject to a discharge from the left ear, attended with considerable deafness, but to which she had paid little attention. She began to suffer during the earlier part of the year from occasional severe pains in the head, which were considered to be neuralgic, and for which she had visited German baths and tried a variety of remedies. In the summer of the year she had frequent attacks of giddiness. Amongst others she had consulted Dr. Buzzard, who referred her to me for an examination of the ear as probably being the source of her discomfort.

There was a profuse discharge from the ear, and a polypus which blocked up the furthermost portion of the meatus, and obviously was interfering with the escape of discharge from the tympanic cavity. She objected to my at once removing the growth. Within a fortnight the symptoms became more urgent in their character. She was so giddy that she could not walk upstairs or for any distance without support; the pains in the head were so severe as to interfere with her rest, and her general health was becoming seriously affected.

On a consultation with Sir W. Fergusson and Dr. Buzzard it was decided that the polypus should be removed. I accordingly took it away the next day (under ether). After the removal it was found that the tympanic membrane was completely ulcerated away, and a small portion of the bone at the lower part of the tympanic cavity was exposed. The usual local applications were subsequently used to the growth, all the pains in the head and giddiness gradually passed off, and by the early part of December there was so little discharge that

it could not be detected except by very close examination with the speculum, and she had returned to her accustomed health.

From time to time I see this patient. She has had no repetition whatever of the head symptoms, and the growth has shown no signs of returning. Can there be any reasonable doubt that, in the absence of any decided treatment, the case would have followed the usual course, so often terminating in cerebral abscess or meningitis?

* * * * * *

These cases are most striking examples, but others with symptoms of a less definite and marked character are most common. In fact, it is a matter of almost daily observation for patients who present themselves with extensive perforation of the tympanic membranes to complain of frequent pains in the neighbourhood of the affected ear, pains which sometimes extend over the half of the cranium, such symptoms being often accompanied by attacks of giddiness.

Can there be a question as to these patients being in a position of more or less peril? Can it be a matter of surprise that some of them eventually become the subjects of meningitis? It would be natural to expect that this occurred more frequently than it does, when the position of the suppurating surface is remembered. The routine of desirable treatment has been indicated in the foregoing cases, and may be shortly said to consist in the removal and complete eradication of polypus where it is present, an improvement of the general condition of the tympanum by astringent applications, and the use of an artificial support in the form of the flattened pad of cotton-wool, learned to be adjusted by the patient. Under the use of this latter application the tympanic cavity is always protected from the external air, and a profusely suppurating granular surface is soon replaced by a more healthy condition of mucous membrane, in which the discharge scarcely suffices to coat the pad when it is daily exchanged for a fresh one. By scrupulous cleanliness and such attention to details the fatality in these cases may, I believe, be immensely diminished, and I am the further encouraged in this view by remembering that many of the deaths from meningitis which have come under my notice have been in those where the condition of the ear has not obtained attention until premonitory symptoms of pyæmia or meningitis have set in. In these, as in all others, death has invariably followed when there has been a distant rigor.

In conclusion, I cannot help repeating that when a polypus by its presence acts as an obstruction to the egress of discharge from the tympanic cavity, the propriety of removing it is so obvious as scarcely to merit discussion. How obvious this is may be frequently seen in the examination of these cases, when by pressing the growth on one side with a small probe, a quantity of fetid pent-up pus will escape from the tympanum. The most ready method of operating in these cases has previously been considered in *The Lancet* and elsewhere, but the method by which the polypus is removed is (provided that it is entirely taken away), comparatively speaking, a trivial matter, the chief difficulties being in the after-management, which shall ensure its complete eradication, so much so that the truly important part of treatment may be said to commence after the operation. The after-treatment demands the greatest care and patience. It is not enough that the root of the growth should be destroyed, but the small portion of mucous membrane from which it springs must be treated in a like manner. In doing this the utmost caution should be used not to touch any part of the surrounding tissue, as this is in the highest degree sensitive, and if the caustic comes in contact with this part, it not only causes extreme pain, but is liable to excite great irritation and inflammation, which it is hardly necessary to observe is most undesirable and dangerous in the position under treatment. To avoid any chance of this it is necessary that the surface under manipulation should be thoroughly dried before the application of any caustic, and that the reflected light used for illumination should be the brightest obtainable. The subject of exostosis in the external meatus, as a complication in cases of perforation and polypus, was discussed in *The Lancet* of Jan. 22nd, 1876, so I make no further allusion to this at present.—*London Lancet.*

A New Saw.—Messrs. George Tiemann & Co., Surgical Instrument Makers, of New York, have produced an entirely novel saw, the invention of Mr. F. A. Stohlmann, whose ingenuity has already done so much to improve the armamentarium chirurgicum. It is intended to replace the chain-saw in common use, and is entirely free from the tendency to bind, kink, and break which characterizes the latter instrument. It consists of two handles connected by a wire of cast-steel, on to which are strung a series of steel beads with sharp cutting edges. The instrument might, indeed, be called a file quite as appropriately as a saw, and its action on a bone is said to be more like that of the first-mentioned tool, in the absence of such rough edges as are made by the saw in common use. No needle is required to carry it through or around a bone, and its beads can be readily strung on to a new wire in case of a break. Another advantage lies in the fact that the beads, by their free rotation, present fresh cutting edges; and still another is the considerable difference in price between this instrument and the ordinary chain-saw.—*New Remedies.*

Results of Ovariotomy in London Hospitals.—From the Hospital for Women no report has been as yet received; but the following table Mr. Wells said, he believed, would represent the result of ovariotomy for the last nine years in four large hospitals and in the Samaritan.

	Cases.	Recoveries.	Deaths.	Mort. per cent.
Guy's	82	39	43	53·24
St. Bartholomew's	21	8	13	61·90
St. Thomas's	29	13	16	55·17
St George's	11	3	8	72·72
Samaritan	296	230	66	22·29

Mr. Wells added that, when these results were known, he believed, not only that the larger hospitals would be encouraged to do all that could be done by efficient sanitary precautions, separate rooms, specially trained nurses, and careful attention to every detail likely to assist in ensuring greater success in the future in their cases of ovariotomy, but that similar care bestowed upon every patient in the surgical wards would lead to far better results in all surgical operations. There was no such useful stimulus as a little wholesome rivalry.—*The Brit. Med. Journal.*

Gastrotomy.—To the Editor of the *Lancet*.—Sir—With reference to the statement made in your issue of the 13th inst., that until M. Verneuil's case there had been no recovery after gastrotomy, I beg to state that in the *Lancet* of May 15th, 1875, there is recorded a case in which gastrotomy was performed by Mr. Sydney Jones, where the patient quite recovered so far as the operation is concerned. The patient was up and about, smoking and enjoying his food, when unfortunately he contracted a sharp attack of bronchitis, and died on the forty-first day after the operation. Yours obediently, Samuel Osborn, F.R.C.S., St. Thomas's Hospital, Jan., 1877.

The Treatment of Atheromatous Cysts of the Neck.—Esmarch recommends in those forms of atheromatous cysts of the neck which can only be removed with difficulty, or with the formation of a large cicatrix, puncture of the sac, the injection of a one per cent. solution of carbolic acid, until the solution returns clear, and then the injection of a solution of a Lugol's solution, containing about three per cent. of iodine, and iodide of potassium in water, which he allows to flow out again after the lapse of a few minutes. If the tumour has not considerably diminished in size in the course of six or eight weeks the operation is repeated. In the course of half a year the cyst is usually reduced to the size of a small node.

Royal College of Physicians.—The president said that a very interesting and important discovery had been made by Dr. Sieveking in the British Museum of the manuscript of the notes of the lectures delivered by Harvey before the college, and he sent round an autotype copy and a transcript of the last page of the particular section relating to the circulation containing words of great interest, for that particular page contained the sum and substance of Harvey's discovery of the circulation, and what appeared to Harvey to be the import of that revelation as regards the use of the circulation in relation to the nutrition and heating of the body. The thanks of the college were accorded to Dr. Sieveking.—*London Lancet.*

Midwifery.

LACERATIONS OF THE PERINEUM FROM CHILDBIRTH.

BY WILLIAM GOODELL, A.M., M.D.,

Clinical Professor of the Diseases of Women and Children in the University of Pennsylvania.

Here is a fine-looking young woman, twenty-eight years old, who comes to us in sad plight. Ten years ago, in her first labour, she met with the mishap of having her perineum very badly torn. The rent extends through the sphincter ani, and three-quarters of an inch up the bowel. The waters drained off early, and the labour, consequently, became a tedious one. Her physician, a man of large experience, very properly put on the forceps. In delivering the head, this rent happened, as it will sometimes happen in spite of the best care. I shall not, therefore, blame the physician, nor can I afford to be uncharitable, for I once met with the same disaster. As I separate the labia you see that the perineum has disappeared, and that the vagina and rectum end in one common opening. It is an ugly looking rent, but bad as it is, she did not discover it until after getting up. Then her troubles began in earnest, and they have grown more and more exacting, until she has been driven to us for relief.

Rents of the perineum are called complete or incomplete, according as the sphincter ani is or is not involved. Most commonly the rent is incomplete, and does not include this muscle. Yet even then the sustaining power of the vaginal column is impaired by such an injury to its perineal abutment, and the bladder and womb tend to sag down. Again, the vulva gapes; it acts no longer as an elastic, air-tight valve, and the womb and vagina, irritated by the air which gains access to them, become congested and hypertrophied. By the enlarged vulva and relaxed vagina erectility is impaired, and the sexual act is blunted. These evils are bad enough, and yet, should the rent involve the sphincter ani, as in our patient, there will be added to them an involuntary escape of flatus and of the fæces, if at all liquid.

For ten years this woman's clothing has been oiled without warning. She is often waked up at night by an involuntary movement of the bowels. She is liable, no matter when or where, to break wind, and she, therefore, stays at home. She told me, with tears, that her person has become repulsive to her husband, and that her friends shun her company. To a young woman, to a young wife, few calamities can be more grievous, and she bitterly denounces her physician. It is, indeed, a sad infirmity; yet, gentlemen, in a busy life very few of you will escape from seeing it happen, in some form or other, in your practice. It behooves you, therefore, to know how to treat it, and better still, how to avoid it.

My time is too limited to speak of all the causes of lacerated perineum; but there are two special and salient ones on which, while our patient is getting her ether, I wish merely to break ground. One cause is the common and, as I hold, faulty mode of supporting the perineum. The problem seeking solution is this:—Given a fetal head, and a vulva through which it must pass; how can the perineum be kept from tearing? Well, this problem looks simple enough, and yet, let me tell you, it is the riddle of the sphinx. Every physician has literally tried his hand at it, and every one has come to grief. Never yet has it been solved.

One advocates pressure on the perineum with a folded napkin; another with an unfolded napkin; a third scouts all napkins, whether folded or unfolded. One plugs up the rectum; another empties it. The perineum is pushed forward by some, and backward by others. Some place their hand transversely across the perineum; some longitudinally, with the fingers looking upward; some longitudinally, with the fingers looking downward. As runs our nursery rhyme, "Simon says, 'Thumbs up!' Simon says, 'Thumbs down!'" and yet the perineum would tear, and tear it will, until woman becomes—like the cherubs of the old painters—all wings and no body.

Now, to my thinking, all this diversity of opinion—and, mind you, I have not given you a tithe of the different modes of "supporting the perineum," as it is technically called—means that Nature herself intends to take care of the perineum, precisely as she does the preceding stages of labour, and that she can very generally

do it better than the physician. But supposing that the case is a morbid one, and really needs help; or else, that you cannot, for the life of you, keep your hands off—what is to be done? Why, imitate Nature. She retards the too rapidly advancing head, and that by making the woman cry out. You will retard the head by making direct pressure, *direct pressure*, I say, on it.

The word "support," as applied to the perineum, is a misnomer. It is not the perineum that needs support, but the head that needs support. By supporting the head we support the perineum. If the ordinary mode of "support" ever does any good, it is by retarding, through the interposed perineum, the advance of the head. But the good thus gained is more than counterbalanced by the evil. Continuous, firm pressure with the hand makes the perineum hot, dry, and unyielding. It also hinders it from undergoing equable dilatation; for the compressed portion cannot take its share of the general tension, and the strain is thrown on the fourchette. Bruised, congested and benumbed by such support, the perineum is no longer a living tissue, capable of responding intelligently, so to speak, to the requirements of the occasion—when to solicit, when to repel the advance of the head. Again, in the last throes, when such support is, if ever, most needed, the woman is very likely to jerk herself away, and the abruptly released perineum suffers.

Make, then, your support, or retarding pressure, directly to the head itself, and not on the perineum; not through a fleshy medium which needs perfect freedom from all restraint, in order to undergo the requisite and inevitable amount of dilatation. For many years I have not touched a perineum for the purpose of saving it. Sometimes I do nothing; at other times I make simply a retarding and guiding pressure with my fingers and thumb spread over the head of the child as it crowns. When the perineum is very rigid, I relax it, by hooking up and pulling forward the sphincter ani, with two fingers passed into the rectum, while with the thumb of the same hand I make the needful restraining pressure upon the head.

A faulty method, then, of supporting the perineum plays an important part in the production of these lacerations. But they very generally stop at the sphincter ani, and are rarely complete. When, however, the rent is a complete one, involving the bowel, you will commonly find that, as in our patient, the third stage of labour has been ended by the forceps. Not a winter passes by without the appearance before you of several such cases. This ought not to be so; but it is so; and why is it so? For many reasons, but at which I have time only to hint. Thus, through false delicacy, many physicians apply the forceps and deliver the woman under a sheet. They work in the dark, and cannot see what they are about. Again, in difficult forceps-cases, the worn-out physician is tempted to brace his feet against the edge of the bedstead. But braced traction means uncontrollable traction, and when the head jerks past the brim, it is very likely, before the physician can recover himself, to tear its way out through the perineum. Or the forceps may slip off, and the physician suddenly finds himself on his back, or brought up all standing by the opposite wall. At best, by the use of the forceps the head is liable to be brought down too quickly upon undilated soft parts, and to be prematurely delivered. Skilled physicians are constantly doing this, and so will you, unless you follow the advice I am about to give. To tell you the truth, such grave lesions to the mother, and for the matter of that, to the child also, from the use of the forceps are so constantly brought to my attention that I am disposed to accept Baudelocque's dictum, that, take it for all, "The forceps has been more injurious than useful to society." My advice, therefore, to you—and you will find it a very safe one to go by—is that, in general, and always with primiparæ, you take off your forceps as soon as the perineum begins to bulge, and that you leave the final delivery of the head to the expulsive efforts of your patient.

But, supposing that, in spite of the greatest care, a rent has happened. What is now to be done? First, discover the rent. You smile—but not so fast! Through over-delicacy on the part of the medical attendant, lacerations are over and over again escaping his notice, until it is too late to do anything. So was it with our patient's physician. So will it be with you,

unless you make it an inflexible rule after every delivery, either to look at the perineum, or to gauge its thickness between the thumb in the vagina and the index finger in the rectum. Don't forget this.

Next, make a clean breast of the mishap to your patient, and as soon as the placenta is delivered, put in metallic sutures. And bear in mind, I beg you, that the lowest one, which goes in first, must be introduced at cutaneous points fully half-an-inch below the lower angle of the rent; but I shall have something more to tell you about these sutures when our patient is being operated on. Do this with a good light, and at once, while the wound is fresh, and the perineum lax and comparatively numb and insensible from the pressure and the passage of the head.

Under such conditions ether is not ordinarily needed; you are merely giving a dressing to the wound, and that the very best dressing it can have. Should the lochia obscure the parts, dam them back by a sponge pushed high up. And don't forget to remove the sponge before you begin to twist the ends of the wires together. Then draw your patient's water, put a pad between her knees, and bind them together. If the rent be an incomplete one, you need do nothing more than keep the bowels bound by opium; remove the stitches on the sixth or the seventh day, and give oil or a saline cathartic on the day following. But, should the sphincter ani be torn through, you will pass into the bladder a self-retaining catheter, and will on the eighth day, remove all the sutures but the first one put in, viz., the one which you will soon see me put around the anal rent. On the ninth day give an enema of four ounces of warm olive oil, followed in two hours by one or more of soap-water, and after the bowels are cleared out, cut the remaining stitch. Ten to one your patient will now be as good as new.

But here lies before us a woman who missed the golden opportunity for immediate repair. The broken ends of the anal muscle have retracted. The parts are rigid, and otherwise deformed by cicatricial contraction. The chance for the simple suture-dressing has gone by. She now needs a tedious and bloody secondary operation, for which she has been prepared by a dose of oil taken yesterday morning. We put her in the lithotomy position, with her knees well supported by two assistants, who also, with their free hands, keep the vulva on the stretch. I first shave off the hair around the rent, and then pass two fingers into the bowel, in order to smooth out the overlying rugous vagina. Next, with a curved pair of scissors, I trim the rectal edges of the rent, and snip off from its vaginal surface a thin paring of mucous membrane. This dissection is continued for an inch and a-half up the posterior wall of the vagina, and then the sides of the perineal rent are denuded for a space a little broader and longer than the cicatrix of the original perineum. Venous blood flows freely, and three small arteries are springing. We do not tie them, lest the ligatures should act as foreign bodies, but each one is nipped with a *serre-fine*. It is on account of the vascularity of these parts, and the valveless veins, that I prefer the half-crushing action of the scissors to the clean cut of the knife. It does not interfere with union, and yet lessens the bleeding.

See what a symmetrical raw surface we have; it looks very like a red butterfly with its tail cut off. But, before folding its wings, and closing the wound, I hunt for some little islets of mucous membrane which may have escaped the scissors. It is not always easy to distinguish them from the raw surface; so, to be on the safe side, I snip off every suspicious looking ridge. The sutures must now be passed, and since success, in either the primary or the secondary operation, depends mainly on the manner in which this is done, I bespeak your closest attention. A sharply curved needle, held in the jaws of a needle-holder, and armed with silver wire, is entered in the left buttock, on a level with the *lower* margin of the anus, and about half an inch away from it. By my finger in the rectum, I pilot this needle through the recto-vaginal septum so that by one sweep it completely girds the rectal rent, and emerges at a corresponding point of the skin on the right buttock. The face ends of this suture are alone visible; its loop lies wholly embedded in the septum. This suture was first devised by my friend, Dr. Emmet, and a very important one it is whenever the sphincter ani is torn through,

or a limited portion of the recto-vaginal septum is involved. It purses up the margins of the slit in the bowel, and brings together the ends of the broken muscle. When, however, the slit in the septum is over three-quarters of an inch in length, its closure cannot be safely entrusted to this single stitch.

Last week I received a letter from a physician out West, who sought my advice. In a very difficult forceps case, he had had the misfortune to see his patient's perineum give way, and her recto-vaginal septum torn up for two and a-half inches—very nearly up to the cervix uteri. I wrote back to him to sew up, first, this slit in the septum, with a sufficient number of interrupted gut-sutures, knotting each one in the rectum, and then to close the perineum by the operation that I am now showing you. These gut-sutures, by the way, need no further attention, for they disappear by absorption.

The perineum proper I shall now close by five other metallic sutures, which will be carried by this long-handled perineum needle. The first one of these five sutures is so passed that its ends emerge at cutaneous points on a level with those of the preceding suture, but half an inch outside of them, while the very small visible portion of its loop lies on the mucous membrane of the posterior vaginal wall, just above the uterine edge of the raw surface. The cutaneous points of the remaining four sutures are about an inch from the margin of the rent, and each suture is also made to pass through the vaginal mucous membrane, very close to the edge of the raw surface.

I now remove the *serres-fines*, and, as you see, the arteries do not bleed, but the general oozing is free. This is the usual case, but fortunately the pressure made by the adjustment of the sutures will always stop it. And it is for the purpose of controlling every bleeding vessel, that I make the perineal sutures include a portion of the sound vaginal mucous membrane. Yon may, if you choose, secure the wires by merely twisting them; but from habit I prefer to clamp each one by a perforated shot. As perfect coaptation has been gained by these deep sutures, no superficial ones will be needed. The ends of the wires are now cut off close to the shot; a self-retaining catheter is next passed into the bladder; the knees are then bound together, and our patient will now be wheeled off to her bed.

For one week her water will be drawn off, and her bowels kept bound. For the latter purpose, opium enough to ease the painful tension of the stitches will suffice. No local dressing, beside cleanliness, will be needed; but after the first forty-eight hours the vagina should be washed out twice daily, with a weak solution of carbolic acid, or of the potassium permanganate. There is one distressing complication of which you need to be forewarned—a very painful collection of wind in the bowels, which few escape. How and why this happens, I cannot say; but the only sure remedy is the introduction into the rectum of a flexible male catheter. And that reminds me of another point: charge your patient not to stand on ceremony whenever she feels the inclination to break wind. Efforts to withhold it may cause a damaging contraction of the sphincter muscle. Our patient's diet will be restricted to milk, toast, eggs, and broths. On the seventh or the eighth day I shall cut and remove every suture but the one first put in, viz., the rectal one. On the morning of the ninth day four ounces of warm olive oil will be slowly injected into her rectum, followed two hours later by soap-water enemata. When her bowels have been thoroughly moved, but not till then, the rectal stitch will be taken out. After this, if the union be good, her bowels will be kept open daily, by an evening dose of the compound liquorice powder. If otherwise, they will be again bound for five days more. For two weeks, at least, she will keep her bed and have her knees bound together. After that she may be allowed to sit up, but not, for a week more, to walk about. Such precautions are needful, in order that the newly-united tissue may not become absorbed, or become relaxed by overstretching.

Other operations have been devised for lacerations of the perineum, but the one just performed before you is simple, and yet very successful. Its good results many of you have repeatedly witnessed. And after an experience with it, in some twenty-five cases of the immediate operation, and in about thirty of the secondary operation, I feel myself entitled to recommend it very warmly.—*Philadelphia Medical and Surgical Reporter.*

CLINIC OF PROF. T. G. THOMAS, AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

Case of Ovaritis and Laceration of Cervix Uteri, Consequent upon Labor.—From her appearance you would probably suppose, gentlemen, that the patient before us was a young girl of sixteen or seventeen; but, on inquiry, we find that she is twenty years of age, has been married four years, and has already had two children. Her name is Mrs. E——. Her first child was born three years ago, and the second one, one year ago; and, in reply to our questioning, she tells us that she has never been well since the birth of the former. She complains of a violent headache at times, and a constant pain in the left side, which is especially aggravated when her bowels are constipated, and at the time of her monthly sickness. Just after she has had a movement of the bowels it is most severe; but it is so troublesome always that she has to spend the greater part of her time lying down, in consequence of it. You will notice that there is something peculiar about these headaches she has mentioned. In a little while after one has commenced, she says she feels something coming up in her throat and choking her, and then she immediately becomes unconscious, and so remains, as a rule, for two or three hours. As far as she is able to judge, she lies perfectly still at these times, and so profoundly insensible that she would not feel a pin stick her. She says that she bites her tongue; but, as there is never any blood on her lips, face, or clothing, we must receive this statement with considerable allowance. These attacks vary in their duration from half an hour to an entire day. When they are over, she feels as if she had been beaten and bruised all over, and particularly in the left side. Her menses are regular, and are both preceded and followed by special pain. Finally, she has constant leucorrhœa. Now, gentlemen, I have gone over these symptoms carefully, as I considered it important to do so. Of course, there was enough in the history of the case to cause us to make a physical examination, and I will tell you, in the first place, that all the troubles of which she complains have resulted from her first labour. On a vaginal examination we found that the cervix was badly lacerated, there being a single deep rent going right through toward the sacrum. This was undoubtedly made by the child's head. The uterus is about normal in size and position.

On employing conjoined manipulation the left ovary was found under the broad ligament, soft and enlarged, and so tender on palpation that she almost jumped off the table when it was touched. There must have been imminent danger of septicæmia during the period of her confinement, from the laceration of the cervix; but she seems to have escaped this. At this time she also had inflammation of the left ovary, and this still continues.

Her excessively nervous condition results partly from that and partly also from the laceration of the cervix; cicatricial tissue in this situation being exceedingly liable to occasion nervous derangements.

The patient herself believes that she has epilepsy; but I think this is not the case. Epileptic fits do not last several hours, like the swoons in this case. Notwithstanding the patient's statements to the contrary, I am of the opinion that she does not bite the tongue; but, even if she did, it would not be proof of epilepsy, as this sometimes occurs in violent hysterical convulsions. These attacks I believe to be of the latter nature, but it seems to me that there is great danger in this instance of the case running into hystero-epilepsy, as it is called. The prognosis is not very encouraging, but much can be done to give relief here. First of all, the lacerated cervix should be operated on, and this will remove the leucorrhœa and a certain amount of nervousness. We cannot cure the ovaritis, but we may be able to control the symptoms caused by it to a great extent by a free use of the bromides. Their action here would be somewhat analogous to that of quinine in the case of a person suffering from malaria, but who was unable to leave the malarious district in which he was living. It would be impossible to remove the cause of the trouble, but its pernicious effects could be counteracted to a certain extent, at all events, by the remedy employed. There is really only about one cure for ovaritis, and that has already signally failed in this case. I refer to pregnancy. The rest from their ordinary functions for nine months and longer, if lactation ensues, not unfrequently restores inflamed ovaries to their normal condition. A little later I shall advise electricity, which is sometimes beneficial; but I can never succeed in really *curing* these cases.

Pregnancy occurring during Lactation.—Mrs. Sarah F——; a native of Germany; aged 23; married four and a half-years, and has had two children and one abortion. It is now sixteen months since her last confinement. She continued to nurse her child until three months ago, when she had an attack of pneumonia, which put an end to lactation, and forced her to wean the infant. She comes to us because she has had no return of her menses since that time. Not very long ago we had a case here, which many of you no doubt remember, in which there was amenorrhœa continuing after pregnancy and lactation were over, and which we found to be due to *super-involution* of the uterus. This atrophy is not uncommon, and in these cases the menopause (which is its natural result) sometimes takes place very early. When in any case there has been no menstruation for a year (without pregnancy or lactation) always be very careful about commencing treatment. If atrophy of the organ has already taken place, you can do no possible good, and any treatment you may institute will only cause your patient useless trouble and expense. Only yesterday two ladies, who were affected in this way, neither of whom was more than thirty years of age, were in my office.

But the present case is not of this character, and I merely allude to this matter to put you on your guard when you meet with patients who are suffering from amenorrhœa. Mrs. F—— has noticed that her courses did not return when they should have done so, and she has come to us to know what is the matter. When I made an examination *per vaginam*, I found there was something in the uterus, which probably interfered with the functuation of menstruation, and I am of the opinion that she is again pregnant.

Pregnancy has nothing to do with menstruation. It is the common opinion, both among physicians and the public in general, that during lactation there is no danger of pregnancy; but this is a fallacy. Whenever ovulation (which, however, commonly ceases during lactation) commences again, pregnancy is liable to occur. Some women never menstruate at all, and yet have large families of children.

Now, gentlemen, I warn you to be very careful in cases like the present. It is said that "a blunder is worse than a crime"; but it is, at all events, only second to one. It is a blunder to bring on the menses in a case of amenorrhœa like this (which, of course, involves the sacrifice of the product of conception) that is only second to the crime of inducing abortion intentionally. Never commence any treatment whatever in a case of amenorrhœa until you are sure that it is not caused either by pregnancy or the menopause. It is a very easy matter to introduce a uterine sound, but the consequences may be disastrous. Or a current of electricity (especially by the faradic) may bring on uterine contractions, and you may find to your consternation that an abortion has been produced. I do not envy the feelings of a practitioner of medicine in such a predicament as this. I am sorry to say, gentlemen, that Dr. Ward, my clinical assistant, makes the awful announcement that all our other cases have lost their courage and run away. We had five to present to-day, but only the two which you have seen could be prevailed upon to come before you.—*Clinic.*

On the Nature and Treatment of Cracked Nipples.—According to Dr. Le Diberder, fissures of the nipples are not really the entire ailment, but a manifestation of derangements of the puerperal state. If, as Dr. Donne asserts, the fissures are due to the constitution of the milk, the alteration of the latter would imply a pathological condition of the blood. Indeed, as soon as the fissures appear, the pulse accelerates, the skin becomes hot, there are much thirst, general lassitude, and, lastly, perspiration. Sleep and appetite participate in the general disorder. Under the influence of the fever, the fissures become more tender, and augment in surface and depth; nursing becomes impossible. The author considers the febrile exacerbations as the cause, not the consequence, of the fissures; he has been led to place a secondary value on local treatment, for which he substitutes general treatment with sulphate of quinine. The latter is given in doses of fifty to eighty centigrammes a day; the local treatment consists in protecting the parts with Samaritan balm or fresh, unsalted butter. In all cases the improvement is rapid, and a cure is accomplished at the end of five or six days. In support of his theory, the author refers to numerous observations and a practice of thirty years, and invites a trial of his method.—*Annal. de Gynecol.* and *Lyon Med.*—*N. Y. Med. Jour.*

CASES ILLUSTRATING THE ADVANTAGE OF THE GENU-PECTORAL POSITION.

BY ARTHUR W. EDIS, M.D.,

Assistant Obstetric Physician to the Middlesex Hospital, etc.

CASE 1.—*Retroversion of the gravid uterus; retention of urine; redressed in the genu-pectoral position.*—R. C——, aged twenty-nine; married ten years; mother of three children. Between the third and fourth month of utero-gestation retention of urine occurred, necessitating the employment of the catheter; but no efforts were made to detect or obviate the cause of the retention. Two days afterwards she presented herself as an out-patient at Middlesex Hospital, complaining of severe bearing-down pain and inability to pass her urine. A No. 8 flexible gum-elastic catheter was introduced and two quarts of urine drawn off. The uterus was found to be enlarged to about the fourth month of utero-gestation, and retroverted, being wedged down beneath the promontory of the sacrum.

Attempts at replacement in the left lateral position failing, the patient was placed in the genu-pectoral position. Two fingers of the right hand were then inserted per vaginam and the fundus passed to one side. On separating the fingers so as to allow pneumatic pressure to come into play, the uterus receded from the pelvis with a distinct noise as of air being sucked in. A Hodge's pessary was then inserted, and the patient directed to avoid sitting down in the ordinary posture for micturition; the genu-pectoral position to be resorted to at regular intervals. No recurrence of retention took place, and the patient progressed satisfactorily.

CASE 2.—*Retroversion of the uterus; prolapse of the left ovary; sterility; cured by genu-pectoral position.*—A. L——, aged twenty; married four years; sterile. Suffers much from severe pain in lower back, and down the left leg on standing or walking. Has severe pain in coitus and defecation, always worse just before the catamenial period.

On examination, the uterus was found to be retroverted, and the left ovary prolapsed and exquisitely sensitive to the touch. On placing the patient in the genu-pectoral position, and allowing the air to enter per vaginam, the uterus was readily replaced, and the ovary could no longer be felt.

Impregnation having occurred after coitus in the genu-pectoral position, the patient missed her next period for the first time in her life. Considerable relief to the other symptoms was also experienced. A Hodge's pessary was passed, but could not be retained, owing to the sensitive condition of the ovary. In consequence of some domestic trouble, the patient miscarried about the sixth week.

Impregnation again took place by resorting to the same posture, a month subsequent to this, and utero-gestation is now progressing accompanied by the usual symptoms. A Hodge's pessary. together with a frequent resort to the genu-pectoral position, prevents the uterus remaining retroverted, and there is every prospect of the case proceeding to a favourable termination, and this after four years' sterility.

CASE 3.—*Retroversion of the uterus; adjustment of a Hodge's pessary; impregnation in genu-pectoral position.*—S. F——, aged twenty-nine; married two years; sterile. Uterus found to be retroverted; cervical canal slightly granular. A Hodge's pessary was inserted, and nitric acid applied to the cervix. Relief to the symptoms ensued, but the sterility remained unimproved. Impregnation ensued the very first time coitus was effected in the genu-pectoral position. The patient miscarried during the second month of utero-gestation from over-fatigue and jolting in an omnibus. The pessary remained in, but the patient never assumed the knee position, as she had no discomfort.

Eight months subsequently to this the local symptoms being very slight, the patient again consulted me respecting her infecundity. Adoption of the posture above-mentioned was advised, and later on I learnt that again she had become pregnant within a few days of my seeing her. Pregnancy advanced satisfactorily, the knee position being frequently resorted to until after the fifth month, with manifest relief to the morning sickness and the feeling of bearing-down.—*London Lancet*

A CASE OF COMPLETE ABLATION OF THE UTERUS.

An apparently successful case of complete excision of the uterus, for cancer, was reported to the last meeting of the German Society of Physicians and Naturalists, by Dr. Hennig, of Leipzic.

In the performance of the operation the uterus was first separated from its connections with the anterior wall of the vagina by a knife and scissors; next it was separated by the fingers from the anterior fold of the peritoneum; and then, since the vessels in the broad ligament bled but little, the fundus of the uterus was drawn forward, first with two fingers and afterward with a hook, so that its connections with the posterior wall of the vagina were divided without difficulty. The growth had invaded the posterior vaginal wall, and one tubercle involved the wall of the rectum, and in its removal a small opening was made in the rectum. The total length of the uterus was five and a-half inches, and the carcinoma had invaded the whole cervix. It was found that the left ovary and Fallopian tube, adherent to the uterus, had been removed with it, and about one-half of the right Fallopian tube. Thus the uterus had not been separated from the peritoneum, as intended, but the tissue which was attached to the base of the uterus showed that old peritoneal exudations had filled up and enclosed the pelvic portion of the peritoneal cavity, in consequence, no doubt, of perimetritis. The opening in the rectum was closed with the needle, and a piece of ice put into the wound; there was little subsequent hæmrorrhage, and the wound was cleansed afterwerd by injections of salicylic acid twice a day. Considerable peritonitis followed, the temperature of 105° being reached on the fifth day after the operation, but it gradually subsided. The recto-vaginal fistula was closed by an operation four weeks after the excision of the uterus, and with the exception of a small superficial abscess from some enlarged glands, the patient's progress was most satisfactory. Four months later a small soft growth appeared in the neighbourhood of the fistula, and was removed without difficulty, the fistula having become almost closed; and up to the date of the communication, eight months after the operation, no further symptoms of recurrence had manifested themselves, and the patient's health continued good.—*Medical and Surgical Reporter.*

Two Births within Ten Months; the Shortest Time on Record.—On Sunday, December 5, 1875, Mrs. M., living four miles west of this place, was delivered of a male child at full term. On Thursday, September 14, 1876, she was again delivered of a large, well-developed male child, weighing seven and one-fourth pounds, which she claims, and which has every appearance of having gone to full term, and I may add that the child was born within three days of the time that she had claimed it ought to be, counting from the time and, as she claims, the *only time* she had sexual intercourse with her husband after the birth of the child until she was over two months advanced in her second pregnancy, she fixing the date from the fact that her husband left home for a two months' absence the morning of the *tenth* day after her confinement, he soliciting, and she consenting, to a "congress" the evening before. Her first child never nursed at the breast, the extreme smallness of her nipples preventing, nor did she, at any time, seem to have much milk—indeed, not enough to give her any trouble. This second child was born in just two hundred and eighty-four days from the date of the birth of the first. In this case how are we to account for the absence of "degeneration" of the womb substance, as is described by Drs. Hamilton, Heschl, Retzius and others?—C. H. Tidd, M.D., *Detroit Review of Medicine*

Action of Chloral on the Rectum.—It would appear that chloral is one of those agents which act with nearly as much energy when introduced in the rectum as when taken into the stomach. In a case of puerperal-convulsions, to which we had been called in consultation, a solution of bromide of potassium with hydrate of chloral, which could not be swallowed by the patient, was injected into the rectum, with the effect of allaying spasm promptly and decidedly. It was repeated in the same case with excellent results. Since that time, other trials of chloral as an enema have confirmed its value in this mode of administration. The quantity of thirty grains in two or three ounces of water will generally be sufficient for a single injection.—*Pacific Medical Journal.*

Materia Medica.

A NEW METHOD OF ADMINISTERING QUINIA.

Dr. W. E. Forrest, Resident Physician at the Presbyterian Hospital, New York, states (*Medical Record*, Dec. 23, 1876) that he had a patient in the hospital with chronic malaria, who could not take quinia for any length of time without being "almost crazy from it," as she expressed herself, and at the suggestion of Dr. Burrall, the visiting physician, he determined to use, in this case, bromohydric acid as recommended by Dr. Milner Fothergill (*Am. Journal Med. Sciences*, October, 1876, p. 556).

It was given in ʒss doses, with quinia in capsules, and with the happiest result. The roaring in the ears and the dizziness disappeared, and the patient no longer objected to being cured by quinia.

Since then Dr. Forrest has tested the medicine in many cases, and it has never failed. Dr. H., of Washington, D.C., entered the hospital suffering from malarial poisoning and from large doses of quinia, and was much pleased at being relieved from the cinchonism by the acid. The tinnitus aurium following the exhibition of quinia seems to be due to an active congestion of at least some parts, if not the whole of the brain, as Dr. D. B. St. J. Roosa has observed that after taking ten or fifteen grains of quinia the membrana tympani and malleus are markedly injected. It had before been noticed that the administration of quinia aggravated the symptoms of otitis media and other aural affections.

It may be that hydrobromic acid, being analogous to bromide of potassium, may, like bromide of potassium, cause contraction of the bloodvessels, and thus prevent the bad effects of quinia. However this may be, it acts in the happiest manner.

There is a growing mistrust among the laity towards quinia. All sorts of stories are reported concerning its harmful effects, such as causing permanent deafness, impairing the eyesight, affecting the brain, etc., etc. Nor are these opinions wholly without reason, for the roaring in the ears, the dizziness, the trembling limbs, the sensation of being in a storm at sea generally, is anything but pleasant and reassuring to a person distrustful of "allopathy." It is, then, the duty of the profession to keep our faithful ally quinia from falling into disrepute when it can be done by so simple a means as the use of this acid.

In giving quinia in solution, Dr. Forrest uses the following formula :—

℞.—Quinia sulph. ʒj; hydrobromic acid, aquæ, āā ʒiss.—M. Sig.—Two teaspoonfuls contain five grains of quinia.

The formula for preparing the acid is as follows: Dissolve ʒx, ʒvj, grs. xxviij of potassæ bromidi in water Oiv, add ʒxiij, ʒj, grs. xxxvij of tartaric acid. The *acid remains in solution*, and potassa bitartrate is precipitated.—*Monthly Abstract.*

Hunyadi Janos Mineral Water. — The Hunyadi Janos, or John Hunyadi, mineral water, was so called after a distinguished Hungarian leader, by its proprietor. It comes from the neighbourhood of Buda, or Ofen, where the spring was discovered in 1863. Since that time more extensive examinations have led to the discovery of other springs in the neighbourhood, and from these the water is obtained. It is richer in purgative salts than any water now imported. Of the characters and properties of this water we are enabled to speak from a somewhat extended experience. The water is bright and clear, with no deposit even after long keeping. Its taste is bitter, but not disagreeably so, and possesses nothing of that nauseous character which sometimes renders the use of purgatives disagreeable. Its chief characteristic is that it renders singularly sweet and pleasant the subsequent draught of ordinary water. Only a small quantity is required—not more than a wineglassful—and this should be taken the first thing in the morning, and shortly followed by a hot draught of tea or coffee, or itself may be warmed and taken hot, with or without the addition of ordinary drinking water. It is of great use in habitual constipation, in catarrhal condition of the bile ducts and bowels, and for congestion of the liver and other organs. One thing worthy of note we would remark—that its use does not give rise to subsequent constipation; on the contrary, the bowels remain slightly relaxed for a time.—*The Medical Times and Gazette.*—*New Remedies.*

NITRITE OF AMYL.—From experimen, I (W. Lemon Lane, M.B.) beg to submit the following deductions :—

1. Amyl-nitrite, when inhaled in small quantities, produces reddening of the face in man, and of the nose and mouth in kittens; this action is due, according to Brunton, to the dilatation and overfilling of the arterioles.

2. When inhaled by kittens in large quantities, it produces cyanosis of the nose and mouth along with insensibility. The cyanosis arises from overdistension of the venous system this being due to the engorged arterioles propelling the blood into the veins, while the insensibility is probably caused by overdistension of the venous system and the heart.

3. When inhaled in small quantities, it produces recovery from chloroformic insensibility by dilating the arterioles of the brain, and thus removing the cerebral anæmia due to the chloroform.

4. When inhaled in large quantities, instead of producing recovery from chloroformic insensibility, it not only retards it, but it may cause death by paralysis and overdistension of the heart, and engorgement of the venous system.

5. It causes a rise of temperature when inhaled in small quantities by the increased amount of blood in the arterioles causing an increased tissue change in the body.

6. In large doses (inhaled) it produces a fall of temperature.

7. It also helps to produce recovery from the chloroformic insensibility by raising the temperature which is always lowered by chloroform, and by removing the paralysis of the heart due to chloroform; this action is well seen by the nitrite of amyl making the heart's beat fewer and its sounds louder.

8. Death is caused chiefly by paralysis of the heart, which is shown by all its cavities being distended, and by engorgement of the venous system.—*British Medical Journal.*

ANÆSTHETIC-MIXTURE.—

Powdered-camphor.....4 drachms.
Sulphuric-ether .....1 ounce.

Dissolve. On applying the mixture for a minute to the part where a superficial operation is to be practised, local anæsthesia is temporarily produced.—*Medical Brief.*

ANTIHYDROPIN.—Dr. Bogamolow some time ago discovered in cockroaches (*Blatta orientalis*, Orthoptera) a crystalline substance, which he named antihydropin, from the favourable effects obtained by him with it in the treatment of dropsy. Roaches are highly esteemed as a popular diuretic by the common people in Russia; this fact induced Dr. B. to employ them in various forms, such as decoction, tincture and powder, and in the form of the supposed alkaloid. Under its use the amount of urine increases, albumen and casts diminish in quantity; œdema of hands, feet, and face subsides, the weight of the body increases, and the pores of the skin begin to act more freely. The remedy is said not to interfere with digestion, nor to irritate the kidneys — *Petersb. Med. Woch.* in *Ph. Z. f. Russl.—New Remedies.*

FORMULÆ.—FISSURE OF THE ANUS.—GLYCERINE OF THE OXIDE OF ZINC.—(ROLLET.)

℞ : glycerine, 16 grammes; starch, 8 grammes; oxide of zinc, 4 grammes. Mix the glycerine and starch, heat gently in a porcelain capsule, stirring until the mass forms a jelly, and add the oxide of zinc. This glycerine is recommended by M. Rollett for dressing the sores, in the shape of fissures or rhagades, which sometimes exist in the radiating folds of the anus in persons who have had chancres. These fissures cicatrize very slowly, on account of frequently repeated contact with feculent matter. It is for this reason that they are cauterized from time to time with nitrate of silver, and are subsequently dressed with the glycerine of the oxide of zinc.

ANTIGASTRALGIC PILLS.—(H. GREEN.)

℞ : extract of belladonna, 50 centigrammes (7 to 8 grains); sulphate of quinine, 4 grammes (about 60 grains). Mix and divide into 30 pills. Three a day in the treatment of gastralgia.

LOTION FOR VAGINAL DISCHARGES. (TRELAT.)

Pure Carbolic Acid, 1 Grammes.
Alcohol, or Cologne Water, 30 Grammes.
Water, 70 Grammes.—Mix.

With the aid of a speculum tampons of cotton wool saturated in this solution are introduced into the vagina once or twice a day, and after they have been withdrawn, slightly astringent injections are employed. As soon as the diseased surfaces are cleansed, the phenicated alcohol is replaced by a less active solution, which contains, for example, 5 grammes of tannin to 30 grammes of glycerine. The tampons are plunged into this solution, and are introduced like the first.—*Courrier Médical.*

Medical Jurisprudence.

THE BORDER-LAND OF INSANITY.

BY EUGENE GRISSOM, M.D.

(Continued from our last.)

The temptation to dwell upon the characteristics of those whom we may well term the illustrious insane may carry us too far, but in certain cases it is indispensable to the faithfulness of the picture, to portray the details thereof.

The case of the renowned Dean Swift I need not dwell upon. He was afflicted through life with vertigo—the result, he says, of cerebral congestion caused by eating a hundred golden pippins at one time. Irritable, strange, gloomy, at last he went months without speaking. His great cruelty, too, and extraordinary perfidy to the women who loved him, foreshadowed his future. St. Patrick's Hospital for lunatics was built and endowed by him for the people of Dublin, at a cost of eleven thousand pounds. This institution still exists, yearly working out its share of blessing, while its great founder moulders in the grave. For the last four or five years of his life he fell into a state of idiocy, locking his lips in the silence of the tomb.

The names of Johnson and Swift suggest that of Pope, whose fame will last as long as the *Universal Prayer* remains as it is, one of the most superb expressions of thought in our language. Is it possible that there was anything abnormal in the constitution of Alexander Pope, the friend of wits and statesmen, the keen satirist, and the model of English poetry for two generations? Dr. Johnson says Pope had disease of the stomach and liver, from which came absolute hypochondriasis.

"Feeble at the best, he finally required perpetual female attendance. So great was his sensibility to cold that he wore a fur doublet under a shirt of coarse woven linen. He was placed in a bodice of stiff canvas when he arose, and could hardly hold himself erect until it was laced. Then came a flannel waistcoat. His slender legs required three pairs of stockings, and he could not dress or undress without the help of the maid. Often he was a picture of misery complete—quarrelled with his friends; symptoms of pressure on the brain appeared, and he sighed for death to end his physical and mental agony. By the active medical aid of Sir Samuel Garth alone was his mind restored to a healthy tone after these attacks.

"I cannot forbear to note a discovery of very recent date, that bears all the marks of an insane act. Prompted by the inordinate vanity that often appears in cerebral disease, he ardently desired to publish his correspondence during his own life-time, and determined to use the petty artifice of concealing the truth by making it appear that the publication was forced upon him through the unprincipled conduct of others, who, he pretended, gave to the public garbled fragments of it. He robbed himself of his own letters, conveyed them piecemeal and by feigned hands to the publishers, and accused others of the theft—among them Dean Swift, who was then imbecile and shut up from the world. Having prepared the literary circle for what he called his genuine correspondence, as published in his own name, he now wrote and gave forth a fictitious one; letters, which his correspondents returned at his own request, were re-written, re-dated, and re-addressed to personages that seemed more likely to bring him credit."

Pope was a sickly boy, without brother or sister to correct his morbid tendencies; he grew up without healthy control, intensely self-conscious, petted, spoiled, vain, indelicate, even malignant, and perhaps the key-note of his life was that this puny skeleton was a parody of the men of the world and of pleasure about him.

But in the survey of the vast field before us, probably no fact will more astonish the casual reader than the constant and recurring proof of brain disease and abnormal organization in a long line of British poets for more than a century and a-half just past.

To begin with Gray, the sweet singer, whose music echoes in our hearts. "The curfew tolls the knell of parting day." How rude the shock to know that this child of a father of violent passions and brutal manners, was a prey to feebleness, indolence, trivial derangements of mind and body, with numberless little affec-

tations, absurdly sensitive, disputatious. He changed his home of twenty years (Peter House, at Cambridge) on account of a silly joke of the college boys upon his peculiarities. His life passed in visions of immortal labours that never saw the light.

Darker and sadder was the fate of Collins, his contemporary—a lyric poet of the first rank, whose ode on the *Passions* is to-day in every choice selection wherever English is read. When first published, his works were unread and unappreciated. Receiving a legacy from a rich uncle, he paid voluntarily all the losses of the publisher, and burned the unsold edition. Insanity came on; he travelled, to shake it off, in foreign lands, but only to return to the lunatic asylum. Such as it was in that day, how terrible a home for such a spirit! Pathetic is the account of the scene at Islington. When Dr. Johnson visited him in its dreary wards, he was holding a book in his hand, having given up earthly hopes and fame; said he, with trembling speech: "I have but one book now, but it is the best." It was the New Testament. He died at thirty-six; and after he had gone, his odes steadily rose in esteem until, a hundred years after, they were pronounced the best in our literature. They have been said to partake of the enthusiasm of Tasso, the magic wildness of Shakespeare, the sublimity of Milton, and the pathos of Ossian. Too late, that judgment, for the fevered brain and the broken heart!

Next in time, but greater in importance, is William Cowper, the first of the modern school of poets—the bold genius who threw off the thraldoms of Pope and all the classical school; and in a single poem, and almost in a day, revolutionized English thought, and prepared the era of Byron, Scott and Wordsworth. The delicate child of a Hertfordshire parson, he was articled as an attorney, but abandoned it. Twelve years he spent in the Temple. Appointed to a clerkship which required a public appearance in the House of Lords for one occasion only, he fancies the clerks against him, and was overcome in the struggle to fit himself for its duties. He hopes he will go mad or die, and in going mad, attempts to commit suicide. One time he will drown himself, but some one in the way prevents; he has the poison at his lips, but is interrupted; he tries to stab himself, and finally does hang himself, but the garter breaks. For the time, the shock restores him. The office abandoned, the excuse of his insanity is religion. He is not one of the elect, and the angry eyes of the Almighty are forever watching him. For two years he is placed under restraint at St. Albans, under care of Dr. Cotton. For a time he loves his cousin, Theodora Cowper, but her father objects. "If you marry William Cowper, what will you do!" "Do, sir," the intrepid girl replied, "wash all day and go out to ride upon the great dog." She spent a lifetime faithful to Cowper, in loneliness and solitude, but he, alas! forgot her in the selfishness—the intense self-consciousness of his life. In the words of a great writer,—

"Beautiful and amiable as his character was, the capacity of strenuous loving might have been its salvation. A man who is able to throw himself into the existence of another, to seek with vehemence the welfare of another, has the strongest safeguard ever given by God against all the evils that result from brooding over and becoming absorbed in the sufferings of self. In all the combinations of human circumstance, true love is well-nigh the only combatant strong enough to overthrow that last and subtlest enemy of man."

He goes to Huntingdon, and boards in the family of Mr. Unwin, after whose death, he still remains for many years the close friend and inmate of the widow's house, Mary Unwin, whose patient devotion and unselfish kindness will live as long as Cowper's fame. It is a life of monastic seclusion; hymns and prayers and sermons, with an occasional evening walk, occupy their days and nights, the Rev. John Newton being their neighbour and friend. Cowper renounces all his former friends; the gloom thickens, and the storm bursts suddenly again, while he was one day at the vicarage; although so near his home, with their gardens adjoining, he was there eighteen months before he could be moved to Mrs. Unwin's. He recovers like a child after long illness; builds chairs and bird-cages, and tames his hares. He tries a little drawing and returns, at last, to books.

It was then that Mrs. Unwin suggested that he write a poem.

Accepting this thought eagerly, he writes and published *The Progress of Error*, but as his old friends take no notice of it, he quivers with wrath and indignation. Lady Austen tells him the story of John Gilpin's Ride, at which he laughs all night, and writes his famous verses, so irresistibly comic. When he begs her for another subject, she suggests *The Sofa*, with a smile, and straightway he composes *The Task*, hardly dreaming that he would accomplish a revolution in a day. Says a writer,—

"England had fancied herself to have outlived the lofty melody of blank verse. She discovered now that the old strain was her favourite—that it could charm her ear, as well as rouse her soul. She found out that nature was as sweet as it had been in the days of Milton—the English fields as fair, the rural sights and sounds as fresh and tender. This worn and sick man, growing old, fanatic, half madman, half recluse, drew the veil from her eyes, and threw open to her a new, sweet, dewy, fragrant world. It is difficult for us to imagine the surprised delight with which the nation felt the sweetness of this voice, which was so familiar, so homelike, so unpretending. Poetry had been for a century a thing of the coffee-houses and the wits. Cowper sprang at a bound into a place more deeply set in the popular heart than Pope ever attained."

His work well-nigh done, the shadows crept up from the autumnal fields. In the last glimmerings of evening light, when Mary Unwin had already felt the warning touch of paralysis, he writes his most perfect productions—strange anomaly of genius. These were the *Verses to My Mother's Picture* and *To Mary*.

In 1794, Mary Unwin falls into dotage, and Cowper, in turn, becomes the nurse. What a solemn picture! One imbecile babbling and laughing in her weakness; the other sitting still and silent as death, speaking to no one, asking nothing, dwelling in a visionary world of diseased fancy! She dies, but in his gathering stupor he knows it not. They take him to a quiet parsonage in Norfolk, where he sits with wild, sad eyes, listening to the moan of the sea. Three years of darkness he survives, writing the *Castaway*, the last and saddest of his poems, in the last year of his life. In the closing year of the century he dies in despair, but, we may trust, to wake in hope.

The lover of his literature is irresistibly attracted by the group of the Lake Poets, as they are called, by their friends, whose history is forever associated with peaceful Westmoreland, Wordsworth and Southey, Coleridge, Lloyd and Lamb—dear Charles Lamb.

If one pronounces that the mark of brain disease was upon all of them, the reader is startled and declares that enthusiasm is carrying judgment beyond its bounds. But what are the facts? Three of these married three sisters, and all were engaged in a scheme to found a new Society on the Susquehanna, which should show mankind how to live. In later days, Lloyd became a raving maniac, and escaping from control in England, is arrested in France, and dies in a Parisian Asylum. Coleridge, with perhaps the grandest metaphysical intellect ever bestowed upon man, and the author of a fragment which no man that ever lived could finish, the wonderful *Ancient Mariner*, after showing signs of the evil to come, finally accelerated his ruin and went to utter wreck with opium. DeQuincy, who has written for us the horrors of opium eating, says :—

"It was a fine saying of Addison that Babylon in ruins is not so affecting a spectacle, or so solemn, as a human mind overthrown by lunacy. How much more awful then, and more magnificent a wreck when a mind so regal as that of Coleridge is overthrown, not so much by a visitation of Providence as by the treachery of his own will, and the conspiracy, as it were, of himself against himself."

Southey, the poet and historian, died of lingering cerebral disease. Wordsworth, the cool, calm, reflective poet, the last man to have such a thought associated with him, we are told by his sister in mysterious language, was overwhelmed by a nervous attack, at the sights of the French Revolution in Paris, whither he had gone, and his later days were passed in mental oblivion, for he died of softening of the brain.

Charles Lamb, the remaining one of the

friends—who does not love the picture of his shambling, ungainly form, but the kindly eye and the generous hand, and the courteous gentleman, and the most delightful essayist that ever handled pen? His was a consecrated life, ever shadowed by the disease that wrought such havoc in his family. Born of a paralytic mother, he was himself confined, in 1796, in an asylum at Hoxton. Mary Lamb, his devoted sister, killed her own mother by stabbing, in a sudden access of insanity, and from that moment Charles devoted himself to her life-long care. Renouncing his love and all thought of marriage, he determined to live for her. Whenever the seasons of insanity approached they took their solitary way to the Asylum—she packing her clothes, with the garments of restraint and all. Joyfully receiving the signal of her improvement, he was wont to go back to lead her home again—beautiful lesson of devotion and brotherly love!

George Gordon Byron was the son of a wild roue, known as Mad Jack Byron, who lived a life of libertinism. His great-uncle, William Lord Byron, killed his relative, Mr. Chaworth, with the sword in a fit of passion. Byron's mother was a high-tempered Highland woman, driven half mad by a spendthrift husband. Once an heiress, but ruined in purse and temper and nerves, by turns she fondled and scolded her solitary, weak, club-footed, and epileptic boy. At eleven he becomes Lord Byron, and from the deepest poverty they pass to the elegance of Newstead Abbey. For fear of the termagant mother, his guardian stands aloof, and the unhappy boy enters life without discipline, with no one to respect, and no one that he loves. A trifling book of juvenile poems is harshly criticized, and he springs to the arena, the Minerva of his genius full born, with a quiver of poisoned arrows. The whole earth shook with the onset, and fame was made. He has no friends; he takes his seat in the House of Lords a stranger. With disappointment in his soul he flies to the East. When he returns, *Childe Harold* has made him the lion of London, and he finds himself, says Moore, "among its illustrious crowds, the most distinguished object."

In the meantime, he lost his mother. She, poor thing, although she could not agree with him, really loved him, and believed in his genius. And he—the moment the funeral procession leaves the door, when all but they two of that household had gone to the grave for the last solemn rites over the ashes of his mother—goes to work with his boxing-gloves and has a violent sparring-match with his servant. It was a wild, physical outburst of dumb misery and defiance—that defiance of pain and of better emotions that distinguished his whole life.

We need not recount the miserable story of his marriage and separation, nor the recital of his dark vices; nor have we time to comment upon the kindly acts his better soul would command, as related by Countess Guiccioli. His long line of brilliant poems the world knows by heart. Unhappily the memoirs were destroyed, which would have revealed to the world more fully the nature of the vulture that preyed upon his life. From time to time recurrent attacks of his epilepsy appeared—the last happening in the Spring of 1822, when in Greece, upon his expedition to aid the patriots in recovering their freedom. Riding out in bad weather, before he recovered from the prolonged prostration of his last dreadful seizure, he succumbed and died after a brief illness. The epitaph has been pronounced upon him: "Never was life less happy nor more forlorn, nor an end more pitiful. Thus all was ended upon earth of a man who had received every gift which Heaven could bestow, except the control of the glorious faculties that God had placed in his hands."

What a contrast is he to Walter Scott, who, when he is involved deeply in debt by his kindness to others, rallies his brain to labour, and in less than three years, alone by the work of his pen, pays a hundred and forty thousand dollars of the sum. He cries out, "Oh, invention, rouse thyself—may man be kind, may God be propitious." "The worst is," he sadly adds, "I never quite know when I am right or wrong." He bears up under two strokes of paralysis. Still, like galley-slave, he labours—confusion of thoughts by day, unalterable weariness and pain by night. When friends tell him his last book (*Count Robert*) is a failure,

he only says, pitifully: "God knows I am at sea and in the dark, and the vessel leaking, too, I think. I have suffered terribly, and I often wish I could lie down and sleep without waking. But I will fight it out if I can. Did I know how to begin, I would begin again this very day, though I knew I should sink at the end." He struggled until the light went out. His wife died by his side when he most needed help. With one faithful child by him, he toiled on. He makes a journey of despair to Italy and returns to meet his doom. The greatest works of his genius, it well has been pronounced, pale before the work of his life. Scotland holds him the type of her race, the flower of her genius, the noblest, truest, and most gifted of all the Scots who glory in the name.

(*To be continued.*)

Spiritualism and Insanity.—Dr. W. B. Carpenter, in his lectures on Spiritualism, delivered at the London Institution, insisted that, in the inquiry into the socalled phenomena and facts of spiritualism, nobody was to be trusted; that almost everything in it must be the result either of deception or self-deception, and that there was an immense difference between the fact itself and the observer's idea of the fact. In conclusion, he said that these investigations were calculated to produce insanity, because insanity was nothing more than the possession of a fixed idea which tinctured everything with which we have to deal.

Sewer Gases.—Professor Frankland has made another contribution to sanitary science science by stating his conclusion, after repeated experiment, that sewage, in flowing through a sewer, however unpleasant the odour may be in the locality, cannot be sufficiently agitated to impregnate the circumambient air with suspended particles. But if sewage becomes stagnant, fermentation ensues, and the bursting of myriads of minute bubbles throws into the air particles of zymotic matter. If, therefore, sewage is constantly passing at a fair rate through the sewers, the air therefrom will be comparatively harmless; but if it be allowed to remain long enough to putrefy, danger to health may arise.—*London Lancet.*

Translations.

On the Treatment of Fractures of the Elbow in Children.

From *L'Union Médicale Du Canada.*

The work of Dr. Berthomier, inspired by M. Laroyenne, Surgeon-in-Chief to La Charité de Lyon, raises a point of surgical practice of the utmost importance. In the case of fracture of the elbow in a child, ought one to fix the limb in extension or in flexion? According to these writers, what is most to be feared in the child is not traumatic arthritis, which is almost nil and rarely produces anchylosis, but the vicious position of the fragments, which in almost all cases is the cause of the difficulty in movement. They have been able to verify this fact in a large number of children. Now, setting out with this view, that the only position capable of securing an exact coaptation of the fragments is extension, they have treated, for several years, all fractures of the elbow in children by this method. In all the cases (of which the notes are related in this thesis) they have been able to observe that the consolidation once obtained in this good position, the joint-stiffness does not resist an appropriate treatment of fifteen or twenty days' duration, sometimes less, so that the articulation enjoys the whole extent of its movements, or very nearly so. They take care to add that in some cases the opposite indication presents itself when there is reason to fear complications arising from the constitutional condition of the patient, such as white swelling in scrofulous subjects, &c. Finally, according to these gentlemen, the epiphysary luxation backward of the epicondyle (a rare accident) requires the immobilization in the flexed position. (Thèse de Paris, 1875.)—*Bulletin Gen. de Thèrap.*

Subcutaneous Injections of the Bromide of Potassium.

From the *Revsta Medico Chirurgica*, Buenos Ayres.

Dr. Luis Frigerio states that he has obtained advantageous results in the treatment of epilepsy from the employment of bromide of potassium by hypodermic injection. At first he uses a solution which contains two centi-

grammes of the bromide in one gramme of the vehicle (one in fifty), afterwards increasing the dose of the bromide as far as sixty centigrammes in each injection. But he has observed that in exceeding twenty centigrammes local accidents of some gravity, such as abscesses and sloughs, may occur.

The place preferentially selected by Dr. Frigerio for the injections is the forearm; care is moreover taken to make free frictions over the injected part, which, according to his observations, facilitate the absorption of the liquid and obviate the supervention of abscesses. He also prescribes rest of the limb, and, if it be possible, requires the patient to keep his bed. These injections are very painful, but by means of them one rapidly obtains dimunition of the attacks, and seldom sees those gastrointestinal phenomena, coryza, and *bromide acne*, which occur when bromide of potassium is given in the ordinary way.—From *O Progresso Medico.*)

From Le Progrès Médical.

At the Anatomical Society the following case was related: Pl.——, aged 81, attacked with cerebral apoplexy, was brought into M. Bouchard's wards at the *Bicêtre*. Two days afterwards she died. At the autopsy, besides the existence of the cerebral hæmorrhagic effusion, the following peculiarities were found: The left kidney was completely wanting. In the region which it ought to occupy a sort of adipose atmosphere (*sic*) was found containing no kidney. The ureter was also absent.. No artery arose from the aorta which might represent the renal artery. The suprarenal capsule was in its place. . . . The right kidney was in its place. . . . On opening the bladder, it was observed that the right ureter entered at the corresponding angle of the trigone. But no opening was observed on the left side. Lastly, on dissecting the specimen it was found that the seminal vesicle and the deferent canal of the left side were also absolutely wanting. . . . . A case precisely similar to the above was presented in 1870 to the *Société Anatomique* by Dr. Reverdin.

From *Le Progres Medical.*

At the session of the Biological Society, on the 17th of February, M. Onimus pointed out the effect of electric currents on the cicatrization and suppuration of wounds. In ordinary wounds, weak currents (of two or three elements) are employed and long continued. In bad (or unhealthy) wounds strong currents (of forty to sixty currents) are required. Good results are obtained, but it must be remarked that the effects differ according to the direction of the curent. When the negative pole is placed near the wound, suppuration is increased, but there is also a greater activity in the formation of fresh granulations; the contrary happens if it be the positive pole which is near the wound. There are probably two causes concerned, at first the electrolytic action, then the influence upon the circulation and nutrition.

Cure of Enuresis in a Little Girl by Electrization of the Anal Sphincter.

From the *Gazetta Medica Italiana.*

This was employed by Dr. Ultzman with surprising success, and by means of the induced current. One pole, a fine brass rod, was introduced into the rectum, or into the vagina; the other was placed upon the symphysis, or on the upper part of the thigh. The duration of treatment, one sitting a day, was from four to six weeks. Herschmann has confirmed the good success of this mode of treatment. He has likewise seen good results from belladonna in increasing doses.—From *Lo Sperimentale.*

The Herring in Hepatic Colic.

From the *Gazzetta Medica Italiana.*

Dr. Rapin relates several cases of hepatic colic, part cured, and part relieved by the daily use of herring. He has presented to the Medical Society of Switzerland, a number of calculi passed by his patients, together with a rich collection of biliary calculi. The author asks if this curative action of herring be not due to the propylamine it contains.—*Bull. Méd. de la Suisse romande.*

From *Le Progrès Médical.*

At a late meeting of the "Société Médicale Des Hospitaux" M. Bucquoy presented a patient who was the subject of *tuberculosis of the tongue.* A large ulceration treated by a solution of carbolic acid in glycerine (one in one hundred) had healed up before. A short time afterwards a fissure formed at the margin of the cicatrix, and was also cured. At present another fissure has formed.

From *Le Progrès Médical.*

At the session of the Academy of Medicine, on 28th Nov., 1876, M. Pasteur related the observation of a young man who had been cured of a severe quartan ague, which had lasted for a year, by two hypodermic injections of 100 drops of a 2½ per cent. solution of carbolic acid. This young man had cured by means of the same treatment two inhabitants of the Sologne affected with a most rebellious form of intermittent fever.

CURE OF AMENORRHŒA.

Dr. Graham has obtained many favourable results from the use of massage in amenorrhœa. He practises flagellation of the whole body, blows upon the back, passive movements of the feet, legs, and thighs, specially adduction and abduction. The case succeeds better if it have a chlorotic foundation rather than a chronic affection of the womb.—*Lo Salute.*

INOCULATION OF CANCER IN DOGS.

Dr. Nowinsky, of St. Petersburg, announces two successful cases in which a small piece of medullary cancer, taken from the nose of one dog and implanted on a healthy wound (which was afterwards cured) on the back of another dog, produced nodules at the seat of inoculation, whose structure resembled that of a primary cancer. The examination was made in one case five months, in the other six weeks, after the inoculation. A number of inoculations on inflamed skin all failed; out of fifteen on healthy skin, two succeeded. These results must be accepted with all reserve.—*Medical Times and Gazette.*

THE CANADIAN

Journal of Medical Science,

A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor.*

TORONTO, MAY, 1877.

ANNUAL EXAMINATIONS OF THE COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

The above examinations were, with exception of the orals, held simultaneously at Toronto and Kingston. The orals were held in Kingston, on Tuesday, 17th April; and in Toronto, on Thursday, 19th. The total number of candidates passed was 188, of whom 45 were first year's men, 63 primaries, and 80 finals. Over three-fourths of the whole were examined at Toronto.

The Examiners were: Dr. H. H. Wright, Dr. Robertson, Dr. Workman, Dr. Morrison, Dr. Morden, Dr. Fowler, Dr. McLaughlin, Dr. Grant, and Dr. Logan.

In order to meet the wishes of the eastern examiners, and suit the convenience of the candidates, the examiners were divided by the Council into two sections, the first five in the above list being assigned to Toronto, and the remaining four to Kingston, for the written examinations. The members of each section, besides conducting their own respective examinations, acted as representatives of those elsewhere engaged, and besides discharging this double duty, every examiner acted as associate with one of his *confreres.*

The number of candidates for homœpathic examination, we are informed, came so near nullity, as hardly to warrant the additional examining fee. Perhaps, however, it is just as well to tolerate the tottering vanity a little longer, and allow it to die out by spontaneous inanition.

The oral examinations, which were unusually limited in number, were conducted in the presence of the whole Board. At the close of the proceedings, a resolution was unanimously passed, expressing the high satisfaction of the Board with the superior character of the general answering of the candidates, and their uniform gentlemanly demeanour throughout their protracted and onerous work.

We learn that it is the general opinion of the examiners that the system of obliging the candidates to write down the questions, at the commencement of each examination, from the dictation of the examiners, instead of each being supplied with printed copies of the questions, is a very serious evil. In the first place, it causes the loss of much time which should with fairness be allowed to the candidates for their proper work. In the second place, it leads to numerous misunderstandings and injurious mistakes, and imposes on the examiners much unpleasant labour in rectifying misapprehensions; especially manifest was the latter evil in the course of the Toronto examinations, the University Convocation Hall being about the worst chamber for acoustic purposes that fancy architecture ever inflicted on suffering humanity.

SEABURY AND JOHNSON.—On our last page will be found the advertisement of this large and successful firm. From the award of the Jurors at the Centennial Exhibition, they must be unequalled for the *originality*, *reliability*, and *general excellence* of their manufactures. The members of the firm are practical pharmacists and chemists, and manufacture in the most approved and practical form the most extensive line of plasters ever produced.

The Anatomist is a picture by Max which was exhibited in the Art Gallery of the International Exhibition. By referring to our advertising columns it will be seen that copies of this picture can be obtained from R. Berendsohn, of New York.

Dr. Peacock, of St. Thomas's Hospital, who has been suffering from a slight attack of hemiplegia, is much better, and it is hoped that he will soon be restored to health.

Medical Council.

EXAMINATION PAPERS.

SURGERY.

Examiner—DR. ROBERTSON.

1. What is an aneurism? Distinguish between the following varieties: True, false, dissecting varicose, aneurismal varix. Give pathology of aneurisms.
2. How is an aneurism of the axillary artery distinguished from other tumours and swellings in the axilla? What different lines of treatment are open to the surgeon in a case of axillary aneurism?
3. What is intracapsular fracture of the neck of the femur? Give the history, causes, diagnosis, prognosis, and treatment.
4. How does dislocation of the lower jaw occur? Give signs, and state how reduced.
5. Give the pathology of tetanus—causes, symptoms, diagnosis, prognosis, and treatment.
6. Give the pathology, causes, symptoms, and treatment of organic stricture of the urethra.

OPERATIVE SURGERY.

Examiner—DR. ROBERTSON.

1. In what cases would resection of the elbow joint be advisable? Describe the operation. What structures must be avoided, and how? Give the after treatment.
2. In what cases is it advisable to remove the superior maxilla? How is it done? Give the after treatment.
3. Describe the lateral operation in lithotomy. State what accidents may unavoidably occur. What precautions must the surgeon take?
4. Describe ligation of the external iliac artery.

MIDWIFERY.

Examiner—DR. WORKMAN.

1. Give, in the order of their sequence, the signs and symptoms of pregnancy, and note those most reliable.
2. State the diagnosis of true and false labour pains, and the course you would adopt in order to ascertain the existence of each.
3. At what period of gestation is abortion most likely to occur. State the indication of its impending and of its actual progression. Mention the chief danger, and give the treatment to prevent it.
4. Consequences of hour glass contraction of the uterus. How would you discover its existence, and what must you do to save the life of the mother?

5. Why is vaginal plugging worse than useless in post partum hæmorrhage, but if thoroughly done most valuable in the so-called unavoidable hæmorrhage, which before birth is associated with placenta prævia?
6. In cases of podalic version, or when the head comes last, when does the life of the child begin to be in danger, and what might be the consequences of a forcible traction?
7. How would you avoid the error of mistaking ovarian tumour or dropsy for pregnancy?
8. Describe retroversion of the uterus. Mention the most distressing symptoms, and give the treatment.

Operative Midwifery.

1. Describe the process of natural labour, giving the position of the child's head with the relation of its several parts to the pelvis at its entrance at the brim, flexions and natural descent until its complete emergence. Describe the fontanelles and sutures, and tell which you would expect first to discover.
2. At what time is the placenta usually detached from the uterus, and where, by vaginal examination, is it generally found? Why do you avoid strong traction on the cord when delivering the placenta? What is the best method of promoting the expulsion of the placenta? Under what circumstances would you deem a second ligature on the cord necessary, and why, in the absence of these circumstances, may a second ligature be dispensed with?
3. What is the cause of secondary or post partum hæmorrhage? Name the only reliable process of its suppression, and what are the means adopted to secure your object.
4. What do you understand by unavoidable hæmorrhage, and state its causes and the source of the escaping blood, and state respective dangers to mother and child?
5. State the course you would pursue in treating such cases, and give the treatment and reasons therefor.
6. Why, before clearly having ascertained the presentation, should you be careful to keep the bag of membranes unbroken?

Medicine.

Examiner—Dr. Fowler.

1. Under what circumstances is irritation most rapidly propagated, and how does irritation influence the function of secretion?
2. A man, forty years of age, is seized with a pain in the head, vomiting, and faintness, ending in syncope in half an hour. He recovers; walks a short distance; becomes drowsy, and dies the next day. Name the disease, explain the symptoms, give the treatment, and state the morbid anatomy.
3. In an ordinary case of typhoid fever, give the morning and evening temperature during the first and fourth week, the case ending in recovery the twenty-sixth day.
4. Mention three diseases in which bronchial breathing is heard, and the morbid anatomy giving rise to each.
5. What morbid conditions give rise to colic? How would you recognise and treat the disease?

Surgical Anatomy.

Examiner—Dr. McLaughlin.

1. Name and explain the causes producing deformity in (*a*) talipes varus, (*b*) talipes equino-varus, (*c*) fracture of the clavicle at its centre.
2. A leg is amputated about its centre. What arteries require ligation or torsion, and where are they to be found?
3. Name the parts met with in cutting down to ligature the brachial artery about its centre.

Sanitary Science.

Examiner—Dr. H. H. Wright.

1. Definition, scope, and intention of sanitary science.
2. Give the composition of the atmosphere as found in healthy localities at the surface of the earth. Enumerate the ordinary sources of the impurities, the percentage which may vitiate the air, and the particular forms of disease which might arise from each of these impurities.
3. What considerations ought to determine the site for a human dwelling? and are cellars desirable in houses? and if not, why not?
4. What do you mean by natural and artificial ventilation? Mention the means of accomplishing both, and what are the advantages or disadvantages of each.
5. Enumerate or mention the disinfectants in general use. Which is the most effectual of these, and give the manner or mode of using them?

Medical Jurisprudence.

Examiner—Dr. Logan.

1. Give a medico-legal definition of a wound and difference between ante and post mortem wounds.
2. State the characteristic appearances of accidental, suicidal, and homicidal drowning.
3. In cases of infanticide, how would you proceed to determine that crime had been committed?

4. Describe the varieties of insanity, and state what you would consider sufficient evidence to warrant commitment.
5. Describe the post mortem appearances in death by lightning.

Practical Chemistry.

Examiner—Dr. Morrison.

1. Name the impurities found in potassium hydrate, and sodium carbonate. Give the tests for them.
2. Give the tests to distinguish mercurous from mercuric salts. Give the reactions in each case.
3. How is antimony detected in the presence of arsenic, and how may arsenites be distinguished from arsenates?
4. Give four tests for lead, three for copper, and two for cyanogen, with reactions in each case.
5. Give the tests for urea and for sugar in the urine. Draw out a plan for the chemical examination of urinary calculi.

Materia Medica.

Examiner—Dr. H. H. Wright.

1. Give the officinal names of the preparations in the envelope, their therapeutic properties, strength, and doses.
2. Give the definition of an anæsthetic. Enumerate those in general use. Give directions as to their administration and cautions in their use.
3. What is opium. Name its officinal varieties. Give its therapeutic properties, officinal preparations, with their strength and doses. How are they administered? When is opium or its preparations contra-indicated? Name its active principles and their doses.
4. Give the rule for apportioning doses to ages. Give, as an example, a quickly acting, mild emetic for a child of six years, and an anodyne for a youth of fifteen years.
5. Give the definition of hœmatinic and the supposed mode of their action.

Anatomy.

Examiner—Dr. McLaughlin.

1. Give the origin, insertion, relations, and actions of the brachialis anticus, gluteus maximus, and tibialis posticus muscles.
2. Give the origin and course of the musculo-spiral and external popliteal nerves.
3. Describe the course and relations of the axillary artery, and name the branches in the order in which they are given off.
4. Give the boundaries of the popliteal space and the relative position of its contents.
5. Give a description of the lungs omitting the minute structure.
6. Describe the male urethra.

Physiology.

Examiner—Dr. Grant.

1. State the chief differences between organic and inorganic bodies.
2. What are the effects produced on the air in its passage through the lungs?
3. Give the inorganic constituents of the blood.
4. Give the chief peculiarity of the pulmonary circulation.
5. Describe the chemical and microscopical characters of chyle.
6. Describe the microscopical features of the sediment which occurs in oxaluria.
7. Give the minute anatomy of the kidney.
8. Enumerate the principal secreting membranes.
9. State the different uses of the bile in the animal economy.
10. Define what is meant by the terms secretion and excretion.

Botany.

Examiner—Dr. Fowler.

1. State how the reproductive function goes on. 1st. In the simplest form of vegetable life. 2nd. In ferns. 3rd. In mosses.
2. How is woody fibre formed in plants?
3. What are the functions of the leaves of plants?
4. Mention from without inwards the parts of which a complete flower consists.
5. Into what two great divisions are flowering plants separated? Give an example of each.
6. Give a short description of the following medicinal plants, and state the natural order to which each belongs: mustard, henbane, poppy, hemlock, peppermint, thornapple.

Chemistry.

Examiner—Dr. Morrison.

1. Divide the non-metallic elements into groups according to their characters and relations. Describe the mode of preparation and properties of iodine, phosphorus, sulphuretted hydrogen, ammonia, sulphuric acid. Give formulæ showing the reaction.
2. Explain by formulæ the reactions which occur in the preparation of sodium carbonate, potassium chlorate, mercuric chloride, potassium iodide.
3. Give the preparation, composition, and properties of arsenic acid, perchloric acid, ferric hydrate, light carburetted hydrogen.

4. Enumerate the characters of methyllic and common alcohols. Show how the latter can be prepared from its inorganic materials, and state the relation the former bears to formic acid. What is ethyl? What evidence have we of its existence?
5. Give the mode of preparation, composition, and properties of chloroform, iodiform, common ether. Is the first an ethyllic compound? Give the reasons.
6. What is urea? Describe an artificial process for preparing it.

Toxicology.

Examiner—Dr. Logan.

1. Give your definition of a poison, and state the various channels through which it may be introduced into the blood.
2. Give the symptoms, treatment, ordinary tests, and fatal dose in poisoning by opium, extract, or tincture.
3. How would you distinguish poisoning by opium from apoplexy, concussion, and intoxication?
4. How would you distinguish gastro-enteritis from poisoning by arsenic, before and after death.
5. In a case of death from supposed poisoning how would you proceed to determine that poison had been taken or administered?

BOOKS AND PAMPHLETS RECEIVED.

On the Anatomical Causes and the Nature of Sympathetic Ophthalmia. By Dr. Adolph Alt, of New York.

On Sympathetic Nuro Retinitis. By Dr. Adolph Alt, of New York.

These are reprints from the Report of the Fifth International Ophthalmological Congress, September, 1876.

First Annual Report of the State Board of Health of the State of Wisconsin for the year ending Dec. 31st, 1876.

This is a carefully prepared report of the work done by the Board since its organization, and in addition contains valuable papers on Small-pox, Sewerage and Drainage, Construction and Drainage of Public Buildings, Mental Hygiene, Food and Domestic Beverages, and Registration and Vital Statistics.

Phthisis: Its Causes, Diagnosis and Treatment. By Wm. Porter, M.D.

The Mortality of Operations in the Upper Lake States compared with that of other Regions. By Edmund Andrews, A.M., M.D., assisted by Thomas B. Lacey, M.D., reprinted from the *Chicago Medical Journal and Examiner.*

This is a pamphlet of 123 pages, containing a valuable statistical resumé of the mortality of surgical operations throughout the world. The author has also added the opinions of different surgeons in various countries as to the propriety and results of certain operations, and after comparing and analyzing them gives the conclusions which he draws from them. This pamphlet must be the outcome of a vast amount of labour, and reflects great credit on its author and his assistant. No such complete work of a similar nature exists in our language.

A Directory for the Dissection of the Human Body. By John Clelland, M.D., F.R.S., Prof. of Anatomy and Physiology in Queen's College, Galway. A. Pidington, 248 and 250 Yonge Street, Toronto; H. C. Lea & Co., Philadelphia. 1878.

Considering the compass of this work, it will prove a valuable adjunct to the larger text-books, and materially aid the student in the acquisition of a thorough knowledge of the important subject treated in it.

The author has a short introductory chapter upon the various instruments and appliances requisite for a successful dissection, and makes some good practical observations upon the manner of using those instruments, as well as the extent of their value.

The work is then systematically arranged by a division of the subject for dissection into five parts, named according to their several localities. He then proceeds to the description of all the structures to be found in each part under dissection, beginning at the most superficial.

Altogether, this little book may be fairly regarded as complete for its extent, and will doubtless prove a valuable accession to the aids in the dissecting-room.

Atlas of Skin Diseases. By Louis A. Duhring, M.D. Philadelphia: J. B. Lippincott & Co., 1877.

Part II. of this valuable Atlas has been published, and its excellence amply repays for the delay in its appearance. This number contains four nearly life-size, chromo-lithographic plates, painted from life, illustrating *Acne Rosacea*, *Icthyosis* (simplex), *Tinea Versicolor*, *Sycosis Non-parasitica*. These illustrations are particularly good, especially that of Tinea Versicolor. Explanatory text of the general features of the disease, its diagnosis and treatment accompanies each plate. The work is to be issued quarterly and completed in eight or ten parts, each consisting of four plates. A success equal to merit will insure a large sale.

Iodine and its Preparations in the Therapeutics of Infancy.

In an exhaustive clinical lecture on this subject, delivered at the Paris Hospital for Children (*Moniteur Thérapeutique*, August 7), M. Jules Simon lays particular stress on the following points:—Tincture of iodine should not be applied pure in tubercular children; it should be diluted either with glycerine or with some unguent. Neither iodide of potassium nor iodide of iron should be given to children under two years of age, except, perhaps, in cases of acute hereditary syphilis, where small doses may be administered. It may be given to the nurse, if the child have not been weaned. Older children bear the drug well. Those who are especially benefitted by it are patients robust in appearance, but with soft inelastic flesh and with manifestations of incipient scrofula. Iodoform is of great service in cases of ozæna and scrofulous wounds. Albuminuria has been observed by M. Simon, in a large number of cases, to follow paintings of the surface with tincture of iodine, especially when applied to eruptions. Iodide of potassium produced the same result, but in a smaller degree. On this head, further investigations are promised. — *London Med. Record.*

At the final examination at Lennoxville College, for the degree of C.M.M.D., the following gentlemen were successful:—Casey A. Wood, Ottawa, and E. A. Gravely, Cornwall.

Communications.

To the Editor of the Canadian Journal of Medical Science.

CASE OF ALDEN.

I have received from Dr. Lavell, Surgeon of the Provincial Penitentiary, Kingston, the following details of the case of F. Alden, who was convicted of the murder of Jefferson, at the November Assizes for the County of Wentworth, and whose sentence was commuted to imprisonment for life in the Penitentiary, to which he was removed shortly after his trial:—

"Kingston, March 23rd, 1877.

"Dear Dr. Workman,—In reply to yours of 15th instant, I have to state that Alden died on the 6th of March. When he entered the prison he was miserably weak. Upon examination, I pronounced him unfit for work, and he was allowed to remain most of the time in our invalid room until admitted to hospital. From the time he came to prison he was troubled with a cough, faulty respiration, and slight hæmorrhage from the lungs. Cardiac disease was quite marked. Digestion of the feeblest kind. He gradually, or rather rapidly, ran down, sinking into a low typhoid condition. For some days preceding death he was in a comatose state, there being, to my mind, *cerebral effusion* present. Nearly a week before his death he was quite unconscious, but partook of what was given, at times greedily, especially stimulants. Before becoming insensible, he had not the *slightest* feeling of compunction for his crime. He seemed to have no *moral sense* whatever. He was as bad mentally as physically, and while I am not prepared to say he was *insane, in the popular sense* of the term, I have no hesitation in stating that in my opinion he was mentally defective. A sadder specimen of mental and physical ruin I have rarely seen. He seemed to be thus defective from birth. His mental weakness, I presume, would have much to do in facilitating his downward moral career. From what I saw of him, I charitably hope he was not responsible. His body being claimed by his friends, I made no *post mortem*. The anatomical peculiarities

mentioned by you, I noticed,—the cranium and chest being quite remarkable.

"Yours truly,

"M. Lavell."

It will be remembered by those who read the testimony given on Alden's trial, that both Dr. Bucke and myself spoke of the unsymmetrical form of his chest and head, and that the erudite *Globe* exhibited its wonted slang contempt towards this portion of our evidence. Dr. Lavell's statement as to Alden's prison condition, and the symptoms which preceded his death, abundantly corroborate the importance attached by us to his abnormal physical development. I stated to Alden's friends at the time of his trial that, should his sentence be commuted to imprisonment for life, his period of existence would not be very prolonged. I felt convinced that he was labouring under a form of heart disease which must end fatally within a very limited time. The clear indications of *cerebral effusion*, mentioned by Dr. Lavell, show that the brain was not in a healthy condition for perhaps a *long* time past.

In the paper on "Insanity and Crime," which I had the honour of reading before the Medical Association of Canada at its annual meeting in this city, in August last, I introduced the following passage, which, on the present occasion, appears to me not inappropriate.

"Time is the grand revealer of all secrets, the infallible expounder of all mysteries, the potent settler of all doubts. If, instead of rushing on the trials of some atrocious offenders at lightning speed, and consigning to the gallows and the quick-limed grave, the solution of the momentous question of their moral responsibility, we should, in cases in which medical opinion suggests the probability of mental unsoundness, place the accused under close observance for a sufficient period, justice would neither be cheated nor outraged; law would be divested of much of its indocility and barbarity, and public sentiment would become more rational and authoritative."

Time and natural death have revealed the grand secret in both Ward and Alden's cases. They would, as I believed, have revealed it in McConnell's case. Time, as I have reliable information in the matter, has, under the keen and vigilant observance of Dr. Clark, settled the doubt as to the real mental condition of Hopkins, who was placed on his trial last April, at Simcoe, for the murder of his wife, and has been in the Toronto Asylum for six months.

The *Globe*, and kindred lovers of Jack Ketch moral suasion, clamoured lustily for the hanging of all the four, and abused the Minister of Justice because he advised the execution of only one. Will time reveal the grand secret of the rabid psychology of the denouncers of the Minister of Justice, because of his deference to educated professional opinion, in preference to unreasoning obedience to their blood-demanding instructions?

Joseph Workman, M.D.

Toronto, March 24, 1877.

APPOINTMENTS.

Dr. A. A. McKinnon to be an Associate Coroner in and for the County of Peel.

Dr. J. W. Montgomery, of Queensville, Co. of York, has been appointed Assistant Medical Superintendent to the Rockwood Asylum, which has lately been purchased from the Dominion by the Ontario Government.

At the Annual Meeting of the Kentucky State Medical Society, held in Louisville in the early part of last month, Dr. Baker, of Shelbyville, offered the following resolutions, which were adopted unanimously:

Resolved,—That this Society is in full accord with the American Medical College Convention, seeking to elevate the standard of medical education in this country.

Resolved,—That summer schools, which enable students to graduate after from eight to nine months' study, are exerting an evil influence upon the profession.

Resolved,—That a winter and summer course by the same school, and graduation at the end of each, tends to deteriorate the standing of the medical profession.

Miscellaneous.

We regret to have to record the death of Mr. R. G. Whitfield, of St. Thomas' Hospital. He was well and favourably known to many of our Canadian graduates who have walked the London Hospitals.

The Surgical Society of Paris, at a meeting held on 10th ultimo, elected Professor Longmore, of Netley, an associated member, and Mr. Bryant, of London, and Professor Lister, of Edinburgh, corresponding members.

Dr. Dolbeau, the eminent Professor of Surgical Pathology of the Faculty of Paris, expired almost suddenly on Saturday last. His death was brought on by an attack of cerebral congestion, the result of plethora and polysarcia.

The following Canadian gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the Royal College of Surgeons at a meeting of the Court of Examiners, on January 22nd :—H. S. Stone, M.B.Edin., New Brunswick ; and W. T. Ward, M.D.McGill, Stanhope, Canada.

An eminent physician, writing to the London *Times*, says he is so impressed with the benefit of pictures, bronzes, art decorations, sculpture, &c.. in a medical point of view, that he is ready to give £100 toward a fund to cover the naked walls of the London hospitals, as he is confident that the contemplation of works of art is beneficial to the recovery of all classes of patients.

Mortality of Children During Their First Year.—According to the researches of M. Kuborn of Belgium, the rate of mortality for children during the first year of life, in the principal countries of Europe, is as follows :—Out of 1,000 children, there die in Sweden 153, in Denmark 156, in Scotland 156, in England 170, in Belgium 186, in Holland 211, in France 216, in Prussia 220, in Spain 226, in Switzerland 252, in Italy 254, in Austria 303, in Russia 311, and in Bavaria 372.—*Brit. Medical Journal.*

Faculty of Medicine of Rio de Janeiro.—In 1876 there matriculated in the various courses of medicine and pharmacy in the Faculty of Medicine of this capital 459 students, being, in the first year in medicine, 119 ; in the second, 85 ; in the third, 63 ; in the fourth, 40 ; in the fifth, 38 ; in the sixth, 25 ; in the first year in pharmacy, 51 ; in the second, 18 ; in the third, 20.—*Revista Médico-Quirúrgica.*

Traumatic Tetanus Cured by Chloral and Jaborandi.—Dr. Ferrini reports (*An. Univ. di. Med.*) a case of traumatic tetanus thus cured. The case is remarkable from the association of the two remedies. The anæsthetic action of the chloral was useful in retarding the paroxysms and securing restorative sleep to the patient. The jaborandi caused abundant diaphoresis, and thus lowered the temperature, causing a sudden and great improvement in the condition of the patient. The temperature fell in two days from 39° C. to 37°. The treatment lasted twenty days.—*Lo Sperimentale*, October, 1876 —*N. Y. Med. Jour.*

Simple Means to Lessen the Pain of a Blister.—The practice of applying multiple blisters, in acute rheumatism, would everywhere be much more popular with physicians, were it not for the pain, and, in certain cases, the strangury which this mode of treatment produces. To lessen the one and prevent the other M. Ernest Besnier proposes the following plan : Have care to apply the blisters early in the morning ; these, properly prepared, covered with a leaf of oiled Joseph paper, will cause very little pain, and never produce the sometimes grave and always painful vesical and renal symptoms which might otherwise occur, provided that the blisters are removed after a few hours, five or six at most, or as soon as the epidermis commences to lift itself lightly and partially, which one can easily tell by the ivory-coloured and wrinkled appearance of the skin. It is then time to remove the plaster, which should be replaced by blotting paper, saturated with cerate or cold cream. The vesication then continues almost painless, and the blister is almost as large as if the application of the cantharides had been continued.—J. L. A., *Lyon Médical.*

Ergot in Atony of the Bladder.—Prof. von Langenbeck, at a meeting of the Berlin Medical Society, stated that in atony of the bladder, associated with enlarged prostrate, in elderly men, in which the organ is never completely emptied of urine, he has lately tried the hypodermic injection of ergotine with most surprising results. In three cases the contractile power of the bladder was at once increased so as to enable the patient to discharge additional urine, and in a few days it had so augmented that very little urine was left behind. After one or two injections the improvement was considerable, and even a diminution in the size of the prostrate seemed to have ensued. Dr. Israel said that he had derived the same benefit from the employment of the ergotine, and referred to the case of a patient who was thus enabled to hold his water for three hours, whereas before he voided it every ten minutes.—*Berlin Klin. Woch.*, January 22.—*The Clinic.*

American Inventive Progress.—Under the above heading the *Scientific American* of May 7th has a long and interesting article, from which we make the following extracts:—To show with what rapidity inventors made improvements on inventions embodying original principles, says the writer, it may be noted that in the early days of the sewing machine 116 patents were granted for improvements thereon in a single year; and out of the 2,910 patents issued in the year 1857, 152 were for improved cotton-gins and presses, 164 for improvements on the steam engine, and 198 for novel devices relating to railroads and improvements in the rolling stock. In the year 1848, three years after the publication of this paper was commenced, but 660 patents were granted; but under the stimulus of publishing those inventions as they were patented, ten years later, in 1858, the number had increased sixfold, reaching 3,710, while up to January 1, 1850, as already stated, the aggregate of patents issued amounted to 17,467; since that time, and up to the present, the total is 181,015. And curiosity here leads us (adds the editor) to review our own work, extending back, say, twenty years, or to 1857, a period during which 170,745 patents have been issued. We find, by actual count, that 62,062 applications have been made through the Scientific American Patent Agency for Patents in the United States and abroad. This averages almost ten applications per day, Sundays excluded, over the entire period, and bears the relation of more than one-quarter to the total number of patents issued in this country up to the time of writing.

Mean Patients.—Some of our contemporaries have announced, and commented on the fact, that the medical profession in Ghent have resolved to keep a list of those patients who make a habit of getting all out of a medical man they can, and then, without paying him, transfer their patronage to another, whom in turn they treat in the same way. Would that Ghent were the only place where such folk were to be found. Honest and grateful people would be surprised to learn the number of persons who will go to a doctor in distress and perhaps are rescued from agony and even death by him, and then live out the lives that have been saved without a thought of remunerating the doctor. Such people probably think that he is under some kind of moral obligation to heal and help them any hour of the day or night for nothing but the pleasure of doing so. There is every element of meanness in their conduct. For the sake of those who are so mean, a black list might well be kept, that they may know where they are and what it means; and that it is better to be on the sick-list even without a doctor than on that list. "But," says an objector, "people may die under this system." Not easily. Urgent cases are to be regarded without reference to the black-list. The mercy of the profession may be trusted not to abuse it, though this very quality of the professsion is sadly abused every day by people who would not think of being unjust to their butcher or their baker. A casuist would find in this matter—the imperative demands on a doctor's services and the mean evasions of a doctor's claims—one of the saddest and most curious facts in morals, for the alteration of which a black-list is by all means justifiable.—*London Lancet.*

Toronto School of Medicine Prizemen for the Session 1876–77.—*First Year:* Clapp, R. E., Macklin, W. C., Todd, J. A. *Second Year:* Burt, Franklin, Dryden, James. *Third Year:* Griffin, H. S., Good, J. W., McKinnon, A. H. *Fourth Year:* Grant, Andrew, Field, Byron.

Toronto University.—The Annual Examinations in the Faculty of Medicine began on April 17th and ended on April 26th. Ninety-eight candidates presented themselves, thirty-seven of whom were for the degree of M.B. This is, we believe, the largest number that has ever come up in the faculty of medicine.

Giant Cells.—It is barely five years ago since Schüppel claimed to have discovered the constant element in the tubercular granulation in the presence of the so-called giant cell, a multi-neucleated mass of protoplasm whose offshoots blended with the reticular basis of the tubercle. But, as is well known, similar bodies occur in granulation-tissue, simple as well as specific, in so-called "healthy" granulations of wounds, equally with those of atonic ulcers. About 12 months ago a paper by Professor A. Jacobson appeared in Virchow's *Archiv*, in which the characters and sources of giant cells were described, the best method of preparation being held to be that by means of Müller's fluid, fragments of granulation-tissue being at once placed in this medium from living subjects. No fewer than eight different structures may, according to the author, be mistaken for giant cells, so that the histologist must proceed very warily in his search after these bodies, which cannot be so characteristic as frequently stated. The structures enumerated are: lymphatics cut obliquely, the endothelium of which is proliferating; thrombi in medium-sized vessels; transverse sections of capillaries full of leucocytes; masses of products of degeneration entangling nuclei or leucocytes; masses of micrococci; transverse sections of hypertrophied muscular fibres with proliferation of nuclei; transverse sections of certain highly cellular organs, such as gland-ducts, interpapillary epithelium, &c.; and lastly, sections of small nerve-bundles, the perineurium representing the contour of the giant cell and the section of the fibres of the nuclei. Such difficulties do not always arise; indeed, when dealing with ordinary granulation-tissue, but few of these sources of error can be present. Jacobson admits that the giant cell may arise from accumulations of white blood-corpuscles, but is unable to speak with definiteness on this point. He also remarks on the impossibility of deciding between the products of infective tubercular inflammation and those of ordinary non-specific inflammation.—*London Lancet.*

Trinity College Convocation.—*Medalists.*—University gold medal, A. T. Stuart (this is the highest honour awarded by the faculty); University silver medal, D. A Stewart; Medical Faculty gold medal, George T. McKeough; Medical Faculty silver medal, R. A. Ross. *Scholarships.*—The second year scholarship, Charles Sheard; the first year scholarships, 1st. A. McDearmid; 2nd. J. M. Black. *M. B.*—The degree of. M. B. was conferred on the following:—W. T. Stuart, D. A. Stewart, F. H. Wilson, G. T. McKeough, R. A. Ross, R. M. Stephen, L. Festry, Peter L. Graham, M. Sutton, J. L. Burkart, W. Tisdale, J. A. Sinclair, H. H. Pringle, A. H Miller, K. Henderson, W. G. Stark, H. Minshall, W. E. Winksell, W. L. Davis, —Macklin, W. Honeywell, G. A. Marlatt, T. M. Miller, R. A. Barkwell, Wm. Parker, J. M. Sutherland. Alex. Davidson has passed his examination in all the branches, but not having attended the necessary number of sessions his degree will not be conferred until next convocation. *Honour Certificates.*—Certificates of honour were awarded—In the final branches to:—R. M. Stephen, L. Festry, and P. L. Graham. In the primary branches to; C. Sheard, H. Meek, J. D. Bonnar, W. A. Dafoe, W. Cornell, U. M. Stanley, J. M. Groves, D. H. Wilson, Wm. McKay, Wm. Doupe, J. P. Rankin, J. Magrath, J. Henderson, J. Algie, and A. M. Baines. *First Year's Examination.*—The following have passed their first year's examination:—Andrew McDearmid, J. M. Black, and P. G. Meldrum. The following candidates have passed their primary examination:—Charles Sheard, Harry Meek, John D. Bonnar, W. A. Dafoe, W. Cornell, Uriah M. Stanley, J. M.

Groves, D. H. Wilson, Wm. McKay, Wm. Doupe, J. P. Rankin, J. Magrath, James Henderson, James Algie, Allan M. Baines, DeLorn, C. O'Gorman, J. Morrison, J. J. McIlhargey, S. A. Cornell, Archibald Wilson, J. M. Forbes, D. A. Brooke, George Riddell, J. T. Gilmour, R. P. Mills, T. G. McCord, Archibald J. Geikie, Alex. McKelvey, F. A. Howe, M. Stalker. T. F. Parker passed in anatomy, general chemistry, and botany.

Annual Examination of the College of Physicians and Surgeons of Ontario.—*Final:* Adams, Arthur J., Toronto; Armour, J. P., Toronto; Bentley, R. J., Toronto; Barkwell, R. H., Trinity; Burkart, J. L., Trinity; Bowen, Geo. H.; Bonnar, H., Trinity; Brian, James; Carmichael, D. A.; Carthew, C. E., Toronto; Davidson, Alex., Trinity; Dumble, Thomas; Day, Jonathan; Esmund, J. J., Toronto; Fraser, Alex. C., McGill; Field, Byron, Toronto; Fisher, D. M., Toronto; Franks, W. H., Trinity; Freeman, W. C., Trinity; Gracey, W. J., Trinity; Grant, A., Toronto; Gordon, Geo., Toronto; Grasett, F. W. L.; Griffin, H. S., (B.A.,) Toronto; Graham, P. L., Trinity; Holmes, F. S. L. R.; Honeywell, William, Trinity; Hourigan, A. B.; Hill, A. J.; Higgins, Ed. M.; Kitchen, Edward, Toronto; Langstaff, George, Toronto; Macklin, Marshall, Trinity; Marlatt, G. A., Trinity; Miller, T. M., Trinity; Miller, A. H., Trinity; Minshall, H., Trinity; McKeough, G. T., Trinity; Munro, W. A., Toronto; McKinnon, A. H., Toronto; McFayden, D., Toronto; McDonald, D. F., Toronto; Miller, C. F.; McNicholl, Eugene; Murray, R.; McDermid, Wm.; Newell, Jas.; Orr, R. B., Toronto; Oakley, W. D., McGill; Parke, Wm. T., Toronto; Parker, Wm., Trinity; Pringle, H. H., Trinity; Phelan, Danl.; Richards, Nicholas, Toronto; Reeve, John E., Toronto; Ross, R. A., Trinity; Routledge, G. A.; Stewart, W. T., Trinity; Sinclair, A. J., Trinity; Stark, W. G., Trinity; Stewart, D. A., Trinity; Stephen, R. M., Trinity; Sutton, Marshall, Trinity; Shaver, Alex., Toronto; Smith, J. B., Toronto; Snider, F. S.; Scovill, S. S.; Smellie, Thos. S. T., McGill; Teskey, L., Trinity; Telgemon, —; Tisdale, Walter, Trinity; Wilkinson, F. B., Toronto; Winskell, W. E., Trinity; Wilson, T. H., Trinity; Wigle, Hiram; Wood, Casey A.; Young, Oliver, Toronto; Youre, John.

First Year: Ames, Fred H., Anderson, Jas., Toronto; Armstrong, —; Black, Fergus, (B. A.,) Bowman, George, Buchner, D. C., Toronto; Bryce, W. W., Trinity; Clapp, R. E., Clemens, George, Cotton, J. M., Cross, W. J., Dickson, J. F., Dickson, C. B., Fisher, Albert, Clendinning, J. J., Toronto; Greer, Thos.; Galbraith, John; Hamilton, C. J.; Head, J. G.; Holt, David, Hunter, J. B., Toronto; Inksetter, D. G.; Machell, A. G., Macklin, W. C., Montgomery, J., McFaydens, J. J., McNamara, G. W., Nicholson, M.A., Toronto; Odlum, John, Rath, F., Radford, J. H., Shaw, F. W., Sheppard, O. B., Shepherd, L. E., Smith, Geo. B., Stevenson, F. C., Sutherland, Toronto; Spence, Thomas, Spencer, Bertram, Steffins, John, Trinity; Todd, J. A., Wallace, Matthew, White, J., Toronto; Welford, A. B., Trinity; Wilson, Thos.

Primary: Adair, James, Toronto; Algee, J., Trinity; Baines, A. M., Trinity; Beeman, T. W.; Bentley, W. H., Toronto; Burt, F., Toronto; Bowman, J. D.; Bremner, W. W.; Brooke, D. B., Trinity; Brent, F.; Craig, H. A.; Cornell, Warner, Trinity; Cornell, Sandford, Trinity; Clinton, George; Cameron, J. D.; Clark, Jno. G., Dafoe, W. A., De Lom, H. A., Doupe, W. H., Trinity; Dryden, J. B., Toronto; Evans, H. A., Forbes, John M., Trinity; Fraser, John R., Geikie, A. J.; Gilmour, John T., Groves, James, Trinity; Greenwood, F., Hooper, Thomas M., Toronto; Howey, W. H., Jones, J. J., Judson, Geo. W., Kennedy, W. B., Kidd, P. E., Lewis, F. W., McKinley, J., Lynch, D. P., Neilson, W. J., Lehman, Wm., Leslie, Joseph Wm., Toronto; Meek, Harry, Merrison, James, Mills, R. P., Trinity; Mills, F. W., McArthur, James; McCarthy, Daniel, Toronto; McCort, Thomas J., Trinity; McCrimmon, John; McGrath, Jas., Trinity; McIlhargey, John, Trinity; McKay, William, Trinity; McKelvey, Alex, Trinity; Pyne, Robert A., Toronto; Riddell, George, Trinity; Riorden, B. L.; Robinson, Alexander, Toronto; Ross, James W., Toronto; Rankin, J. P., Trinity; Robson, W. T., Toronto; Sheard, Charles, Trinity; Smith, D. T., Stalker, Malcolm, Trinity; Stanley, Uriah, Trinity; Vanderburg, J. F., Toronto; Wilson, D. H., Trinity.

THE DISTAL LIGATURE IN AORTIC ANEURISM. DELIVERED IN UNIVERSITY COLLEGE HOSPITAL. BY CHRISTOPHER HEATH, F.R.C.S., HOLME PROFESSOR OF CLINICAL SURGERY, ETC.—The history of the application of the distal ligature for the treatment of aortic aneurism is briefly this. There were certain cases on record of a ligature having been put on the left carotid for what was assumed to be carotid anuerism low down; and in some of them, notably those recorded by Tilanus and Rigen of Amsterdam, the parents recovered from the operation, living many months afterwards, and then died from some other disease, the aneurism being cured. In both these cases, it was proved after death that the diagnosis had been incorrect, and that the aneurisms had been aortic, and had been cured by being filled with clot. In 1829, a surgeon named Montgomery tied the left carotid for an aneurism which proved to be aortic, and it was nearly cured when the patient died some months afterwards. Mr. Samuel Lane tied the left carotid for an aneurism, partly carotid and partly aortic, in 1852; and Pirogoff appears to have had two similar cases. These facts were known, but no special conclusions were drawn from them for the cure of aortic aneerism by surgical interference of this kind till Dr. Cockle wrote a paper in the *Lancet*, in 1860, where he recommended the application of a ligature to the left carotid as a means of treating aneurism of the aorta. I have for some years taken considerable interest in the treatment of aneurisms of the root of the neck. I had a patient at the Westminister Hospital, in 1865, on whom I performed the operation of simultaneous ligature of the carotid and subclavian arteries for a supposed innominate aneurism; and, although the patient was under very unfavourable circumstances, she lived four years after the operation, and at her death the disease proved to be an aortic aneurism. In 1872, with Dr. Cockle's concurrence, I tied the left carotid in a case of aortic aneurism, and the patient derived very great benefit, the aneurism subsiding immediately, and all urgent symptoms passing off until he renewed hard manual labour, when the sac again enlarged and killed him in September, 1876. The preparations, which is in the College of Surgeons, shows a large sac arising from the first or ascending portion of the arch of the aorta. In 1874, I again placed a ligature on the left carotid in a case of aorta aneurism which had baffled treatment, but the patient died a few hours after from want of blood-supply to the brain. In 1875, Mr. Holmes successfully tied the left carotid in a young woman believed to have an aortic aneurism, and she is still alive and well. During this session, a man was under my care on whom I wished to operate, but he declined, and six weeks afterwards returned in great distress and died in a few hours. The specimen shows that this would have been a very favorable case for ligature of the left carotid. The last case was in the woman on whom I had proposed to operate on Wednesday last. This woman had an aortic aneurism; and it was evident that, if something were not done, her life must shortly cease. She was forty-three years of age, and was admitted under Dr. Wilson Fox on January 10th. She was submitted to treatment by rest, by appropriate medicines, rigid diet, and particularly by the administration of iodide of potassium; and it is well to say that some physicians lay great stress upon the effect which iodide of potassium has in producing clot. She was fairly put under the influence of it, but experienced no benefit. The aneurism varied a good deal, but, on the whole, was increasing in size; and she was transferred to me, with the view of having the carotid tied. I had no doubt myself that the left was the proper one to tie, because it is essential that we should be beyond the disease; and, by tying the left, I made pretty certain that we should be beyond the aneurism. The death of the patient was due to the fact that we were obliged to lay her down; and, the trachea being already very much compressed by the aneurism, it became practically occluded. You will remember that I did laryngotomy; and, as the anterior jugular vein was very large, it was unavoidably divided during the operation; but still blood did not reach the lungs, and, except for the flattening of the trachea, the patient would no doubt have had sufficient air and have lived for the operation to be performed. Had I known that there was so much flattening of the trachea, I should not have operated on the patient lying

down ; I should have had her sitting up in a chair and without an anæsthetic. But, in these cases of dyspnœa, we find chloroform gives so much relief, that we determined to administer it. If there ever was a favourable case for ligature of the left carotid, this was the one. The aneurism just involves, and no more, the orifice of the innominate, and springs from the upper part of the transverse portion of the arch of the aorta between the innominate and left carotid. If I were asked what case I should by preference choose for the operation, it would have been this very case. I think, in all probability, we should have had a good cure; for, even under very unfavourable circumstances, she had already a small clot in the aneurism ; and, much as the untoward result is to be regretted, it must be remembered that she laboured under a disease necessarily and rapidly fatal if untreated.—*Brit. Med. Journal.*

Elastic Compression by Sponges.—Professor C. Heine (*Prager Med. Wochenschrift*, 1876, No. 32) has for some time used compression by means of sponge in order to produce absorption in cases of chronic, serus, fungous, and deformative inflammations of joints, sheaths of tendons, and bursæ. He usually applies a plaster of Paris bandage, in which an opening is left at the point where pressure is to be applied. A piece of dry sponge, cut to the proper size, is then laid on the part, and compressed by a roller to about one-tenth of its thickness. The plan has, he says, been very successful in the above-mentioned affections; and he has also cured a very large cavernous angioma by elastic pressure applied in the same way.—*Brit. Med. Journal.*

Births, Marriages, and Deaths.

BIRTHS.

On the 11th inst., at 146 Bay Street, Mrs. T. W. Reade, of a son.

In London, on the 22nd inst., the wife of Dr. F. H. Mitchell, of a daughter.

On Thursday, April 12th, 1877, the wife of Dr. Thomas Armstrong, of York Mills, of a daughter.

At Bradford, on Thursday, the 29th inst., Mrs. J. Widmer Rolph, of a son.

DEATH.

At Belmont, on March 26th, Mary C., daughter of Dr. J. B. Campbell, aged 2 years, 6 months, and 18 days.

THE ANATOMIST.

One of the most remarkable

PICTURES

exhibited at the Centennial, in Philadelphia, was

"The Anatomist,"

By Prof. G. MAX.

—o—

The Anatomist is seated before a table laden with crania, books and instruments ; in front of him is his subject, stretched on a trestle-board, covered with a sheet. He has just drawn this from the face, which he is thoughtfully contemplating. It is that of a woman, young and fair. A wealth of golden hair lies in disorder around the pallid features. It is a masterly delineation, full of noble thought. The desire to obtain copies was so general that

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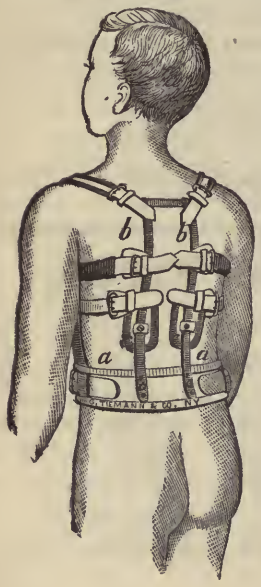

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TORONTO. JUNE, 1877.

Selections: Medicine.

ATROPIA IN THE EXHAUSTING NIGHT-SWEATS OF PHTHISIS.

In an interesting article on anhidrotics (agents which check profuse prespiration), Dr. J. Milner Fothergill (*Practitioner*, Dec., 1876) thus speaks of the value of atropia:—

I have no hesitation in saying that the use of this agent completely changes the aspect of many cases of pulmonary phthisis. For the arrest of the exhausting night perspirations of phthisis, belladonna is as potent as digitalis is in giving tone to a feeble heart. It is quite true that neither is very effective in the last and final stages of disease, for indeed nothing is very potent then; but in the early stages the action of each is very pronounced. In the night-sweats of spreading caseous pneumonia, the administration of belladonna is followed in almost all cases by a decided arrest of the flux; and, in many cases, the arrest of this flux is accompanied by immediate improvement. A few of the worst cases only go on entirely unaffected. In the colliquative sweats of the last stage, when the lung is breaking down extensively, the influence exercised is small; still, it usually palliates the drain to some extent even then. The loss of the salts of the body in profuse perspiration quickly exhausts the system; and the arrest of this drain commonly permits of the other measures being effective in improving the general condition. While the loss goes on unchecked, improvement is impossible.

To produce these effects it is necessary, however, to use larger doses than those spoken of by Dr. Ringer. He speaks of from $\frac{1}{200}$th to $\frac{1}{150}$th of a grain of atropine given hypodermically; and of from $\frac{1}{80}$th to $\frac{1}{40}$th by the mouth. I have had no opportunity of trying the hypodermic method; but as to the dose given by the mouth, I usually commence with $\frac{1}{75}$th of a grain, and go up to $\frac{1}{25}$th; the latter dose rarely failing. I am inclined to think that in Mr. William Murrel's sixty cases referred to by Dr. Ringer the large proportion of failures (from 8 to 10 per cent.) was due, to some extent, to his not pushing the drug. When $\frac{1}{75}$th is ineffective, I prescribe $\frac{1}{50}$th; if, next week, that has failed, $\frac{1}{25}$th is ordered. This usually produces the desired effect, after which smaller doses will maintain it, and may be continued. For instance, in one case at Victoria Park Hospital, on July 22nd, $\frac{1}{50}$th was ordered; the patient at the same time taking a mixture of iron and strychnia, with ʒij of sulphate of magnesia three times a day. This did well for a week or two, when the night-sweats returned, so that on August 19th the dose was increased to $\frac{1}{25}$th. The effect of this was pronounced, and on the 26th it was reduced to $\frac{1}{50}$th again; and on September 9th to $\frac{1}{75}$th, which dose keeps the sweats down satisfactorily.

As to the number of cases I have kept no account; but, during the week, July 16th to the 25th, this year, an intensely hot week, 74 patients, out of a total of 300, were taking belladonna at bedtime at Victoria Park Hospital alone. At the West London Hospital I had at least 30 more during the same week. Thus I had 100 at one time under the influence of belladonna. Consequently my experience of the use of belladonna in the treatment of hidrosis is not a very limited one. It enables

me to say that belladonna or atropine may be freely used without apprehensions as to any toxic effects appearing. Even with $\frac{1}{25}$th of a grain of atropine every night, the patients do not complain much; some dryness of the throat and a little indistinctness of vision being all, while all prefer these to their dreaded sweats. These effects wear off in a day or two after the drug is discontinued, or even the dose reduced. I have not yet seen any alarming symptoms produced. This I attribute to the gradual increase of the dose; and I have little doubt that if $\frac{1}{25}$th were given at first, many cases would show marked toxic symptoms. But where there seems a tolerance of the drug, the dose must be increased; and may safely be increased. Belladonna is an agent which produces marked toxic symptoms long before a fatal dose is reached; much the same as is the case with strychnia. It is not a treacherous drug by any means, and may be used with confidence. Dr. Charles Kelly (*Practitioner*, March, 1873) found that, in the treatment of whooping-cough, half an ounce of the tincture in twenty-four hours could be safely taken by children of three or four years of age. Without advocating such large doses, until a further experience demonstrated their safe use, I may say that from $\frac{1}{75}$th to $\frac{1}{25}$th of a grain of atropine, and from 20 to 35 minims of the tincture of belladonna are quite safe doses. The atropine may be given in pill; while the tincture of belladonna is best combined with dilute phosphoric or sulphuric acid (*m*xv), and may be taken at bedtime or when the patient wakens, about two or three in the morning. It is my intention to try larger doses for the relief of the colliquative sweats of advanced phthisis. As to the actual facts of toxic symptoms of the seventy-four cases mentioned, one had dryness of the throat, a second had some derangement of the pupils, and a third some indistinctness of vision on getting out of bed in the morning, which quickly wore off.

If any doubts existed as to the casual associations betwixt the administration of the belladonna and the arrest of the hidrosis, they are dissipated by the fact that on omitting the medicine the perspirations returned—as when the patients neglect to attend the hospital, and so are without their medicine. On again taking the medicine the sweats disappear. This puts the matter beyond doubt or cavil, especially when combined with Ringer's experiments, which are well worth perusal.

A few words now as to the practical use of belladonna in the treatment of phthisis. The most common cases are those where a slowly spreading caseous pneumonia involves one lung to the second, third, fourth, or fifth rib. There is a fast pulse, over 100, a temperature over 100° Fahr., cough, profuse night-sweats, and rapid wasting. It is in these cases that the utility of belladonna is so well seen. As soon as the profuse night-sweats are checked, the patient begins to pick up; the appetite returns; food is better assimilated; the sleep is refreshing; and the mind is much relieved. In fact the arrest of the drain of salts by the hidrosis at once inaugurates an improvement; and the good effects of the other measures resorted to are not lost, as before. It is well, at the same time, to give the patient tonics, iron with strychnine or quinine, together with mineral acids; good food in liberal supplies, and cod-liver oil if the stomach will carry it. The association of night-sweats with debility is notorious. Fuller recommends some alcohol to be taken at bedtime invariably. When the morning sleep is deep the sweats are most profuse, and are "to be in part avoided by keeping awake, which is often done purposely." (Marshall Hall.)

Finally, my experience of pulmonary phthisis is not depressing, but rather encouraging, especially in its early stages. It has been much more cheering since I have employed belladonna extensively. In some cases where the belladonna does not act as potently as usual, oxide of zinc with hyoscyamus is found to be effective. In those cases where the cough at night prevents sleep, opium may be given with belladonna. The belladonna prevents too great action on the sudoriparous glands, and the combination is very effective. To prevent too much action in the intestinal canal, it is well to give the neurotics in pill with aloes. A pill of morphia ($\frac{1}{2}$ a grain), atropine, $\frac{1}{30}$th in three grains of pil. al. et myrrh., is used by me at Victoria Park, and acts satisfactorily. It is

not always an easy matter to avoid the undesirable effects of therapeutic agents; and when they must be resorted to, it becomes necessary to provide against and ward off these effects by suitable additions and combinations. There are no serious drawbacks to the use of belladonna, and the dry throat and indistinctness of vision are usually borne by the patients without complaint.

The arrest of the profuse and exhausting night-sweats is usually followed by more or less immediate improvement; and belladonna very rarely fails to achieve this arrest. The systematic use of anhidrotics must grow with further acquaintance with them, and especially with belladonna; and the public, as well as the profession, are under a deep debt to Dr. Ringer, which, I trust, this paper will do something towards demonstrating. Belladonna seems to be a specific anhidrotic, acting on the sudoriparous glands as it does on the submaxillary gland. Heidenhain (*Pflüger's Archiv.*, vol. v., p. 40,) indicates that belladonna may be found to affect other glands than the submaxillary by acting on their secreting nerves. Such seems to be its action in the arrest of hidrosis; which it effects when applied locally as well as when given by the mouth or injected hypodermically. —*American Journal of Medical Sciences.*

The Night Cries and Night Startings of Children.—Caspari attributes them to frightful dreams. In children under a year old, and especially in delicate, anæmic children, they are associated with mild or severe convulsions. He uses as a specific, bromide of potassium, and according to the age gives 0·5 grmm. to 1·5 grmm. (gr. 7½ to gr. 23½) a day. (Gr. xxv. potas. brom., aq. ʒiss—ʒi four times a day). According to Edlefsen's experience bromide of potassium always causes quiet and peaceful sleep in young children, but does not act so well in older ones. It acts well in convulsions, teething and meningitis. He gives a strong six months old child 0·5 grmm. (7½ grains) three or four times in the day, or once or twice in the evening. Younger and less robust ones, he gives 0·25 grmm. as a dose. In older children he often increases the dose to 0·75 grmm. several times a day. (Deutsche. Ztsch. f. Prakt. Med. 28, p. 234, 1876, und *a.a.* 0·38, p. 412, v. Dr. Edlefsen in Kiel.) Quoted in *Schmidt's Jahrbucher*, Bd. 172, No. 11, 1876.—*Can. Med. and Surg. Journal.*

The Discrimination and Treatment of Neuralgia.—I have for several years used a simple and ready method of discovering whether stimulants and tonics, or whether alkalies and aperients, would be more likely to cure any given case of facial or dental neuralgia. The patient is first directed to hold warm water in his mouth, or to otherwise apply warmth to the seat of pain; and if little or no relief is thus gained, but especially if, as often happens, the pain is actually intensified, then to employ cold water in a similar way. If the cold water relieve the pain, this is regarded as being chiefly due to impurity of blood; and I have always found that it is relieved with certainty by magnesia and dieting. If, on the contrary, warmth relieve the pain very distinctly, then tonics, varying as the locality (district), constitution of patient, and precise causation, are surely indicated, and will, if in sufficient doses and combined (when necessary) with sedatives, remove—for a time at least, but often altogether—the insufferable pain. Many cases have occurred in which patients, at first resolutely bent upon having one or more teeth extracted, have been enabled to retain them for years simply by putting in practice this test and its associated treatment. There are some cases of neuralgia in overworked persons in which both plans of treatment are required. A man catches cold and has hemicrania. He is better out-of doors; but, upon entering a warm room, is shortly in unendurable pain, especially about one eye which becomes congested and tear-streaming. A single large dose of magnesian aperient, followed by ten, or fifteen-grain doses of ammonium chloride in infusion of bark, will remove this condition. Again, the same patient may at one time require the magnesia plan and at another time the tonic and stimulant plan for pain in the selfsame nerve, this difference being shown and the proper method suggested by the altered effect of cold and heat; and it is probably the want of recognition of this fact which produces the apparent fickleness and uncertainty of any particular drug, such as phosphorus, guarana, quinine, etc., in this disorder.—T. Churton, M.B., Physician to the Leeds Dispensary.—*Brit. Med. Journal.*

THE MUSCULAR ARTERIOLES: THEIR STRUCTURE AND FUNCTION IN HEALTH AND IN CERTAIN MORBID STATES.

BY GEORGE JOHNSON, M.D., F.R.S.

I have already referred to the hypertrophy of the left ventricle as an intelligible physiological result of the more forcible muscular effort required to propel the blood through the resisting arterioles. During the progress of the cardio-vascular changes, it happens not unfrequently that the walls of the large arteries undergo more or less of structural change. They become thickened and indurated, and, as a result of these textural changes, their elasticity is more or less impaired. These structural changes in the walls of the larger arteries may be partly caused by the excessive strain to which they are subjected under the influence of the high tension resulting from the antagonism between the resisting arterioles and the hypertrophied ventricle. It is a matter of common observation, that the walls of the arch of the aorta not unfrequently have their texture injured and their elasticity impaired by the forcible distension to which they are subjected when, in consequence of incompetence of the aortic valves, the left ventricle has become much dilated and hypertrophied.

In part, perhaps, the arterial degeneration in cases of Bright's disease may be excited by the morbid quality of the blood which they are continually transmitting—the same morbid quality of blood as that which not uncommonly sets up inflammatory changes in the lining or the investing membrane of the heart itself. Whatever may be the determining causes of the structural changes in the larger arteries, it is certain that, since the elasticity of the large arteries is a force which aids the heart in propelling the blood onwards, the loss or impairment of that elasticity must add to the work of the heart, and thus tend to increase the hypertrophy of the left ventricle. Hence the resistance to the blood-current resulting from the excessive contraction of the muscular arterioles is still further increased by the not infrequent complication of degeneration of the walls of the large arteries.

Dr. Galabin, in the pamphlet before referred to, has shown, from a comparison of the *post mortem* records at Guy's Hospital, that hypertrophy of the left ventricle is more frequently associated with granular kidney and healthy large arteries than with atheromatous arteries and healthy kidneys. He also shows that the hypertrophy of the ventricle, which results from degeneration of the arteries alone, is less in amount than that which is often associated with disease of the kidney while the large arteries are healthy. This result might have been inferred from the experiments on apnœa referred to in my last lecture. For, since it has been proved that the combined force of contraction in the muscular arterioles is greater than that of the ventricle, it is evident that the contracting arterioles would impede the circulation, and so add to the work of the ventricle in a greater degree than the degeneration and impaired elasticity of the large arteries.

In the advanced stages of renal degeneration, some of the muscular arterioles may undergo degenerative changes, partly perhaps due to the impure blood which they transmit, and partly to the excessive strain to which they are subjected by the forcible contraction of the hypertrophied heart. In the so-called lardaceous form of renal disease, the muscular arterioles very early undergo this degenerative change, and, their contractile power being thus impaired, they are unable to regulate or to impede the circulation. Hence it happens that hypertrophy of the heart is rarely associated with this lardaceous form of disease.

Amongst the accidental injuries which result from the high arterial tension associated with renal disease, one of the most frequent and most serious is the occurrence of *rupture of one or more intracranial arteries*, and consequent hæmorrhage into the substance or on the surface of the brain. It has been a debated question with some writers on cerebral hæmorrhage, whether the occurrence of that accident is favoured by hypertrophy of the left ventricle. When hypertrophy of the heart is a result of disease of the aortic valves, or of degeneration with impaired elasticity of the walls of the large arteries, it is generally no more than sufficient to overcome the impediment thus

offered to the circulation. The strength of the left ventricle, therefore, in such cases is not a true measure of the force with which the blood is sent into the distal arteries. On the contrary, it is a measure of the difficulty with which the blood is transmitted through the primary branches, and, therefore, through the entire system of arteries. When hypertrophy, thus originating, is associated, as it sometimes is, with cerebral hæmorrhage, the reason is that the hypertrophy and the hæmorrhage are joint results of one common cause, namely, degeneration pervading more or less extensively the arterial tree. The hypertrophy of the left ventricle is a consequence of degeneration of the aorta and its primary branches. The cerebral hæmorrhage is a consequence of a similar degeneration of the arteries of the brain.

The state of the circulation is very different when the left ventricle has become hypertrophied, in consequence of the impediment resulting from contraction of the hypertrophied muscular arterioles in connection with degeneration of the kidney. In this state of things, while the arterial stopcocks are resisting the passage of the morbid blood, the strong left ventricle is forcibly driving it onwards. There is thus an excessive strain upon the whole length of the arterial pipes, between the stopcocks and the cardiac forcing-pump. One of the bits of arterial tubing being overstretched, becomes brittle, and breaks; then the powerful ventricle forces the blood through the ruptured artery into the yielding tissue of the brain, and a rapidly fatal sanguineous apoplexy is the result. It is a well known fact that some of the most formidable cases of cerebral hæmorrhage are those which are associated with granular contraction of the kidney.

Here it may be convenient to discuss the phenomena called *reduplication or doubling of the first sound of the heart*, which many observers have noted as being one of the most frequent results of the high arterial tension associated with various forms and stages of Bright's disease. Dr. Sibson devoted much time and labour to the investigation of this physical sign of arterial tension, and he discussed it at length in his Lumleian lectures. He explains the reduplication of the first sound by stating that the left ventricle, owing to the resistance offered by the tight arteries to the expulsion of its contents, continues its contraction later than the right, which has expelled its blood into the pulmonary artery with comparative ease. The shock of the first sound is heard at the end of the contraction of the ventricle. Hence, in consequence of the left ventricle contracting more tardily than the right, there is a doubling of the first sound.

Dr. Sibson admits that there is a difficulty in reconciling this explanation of doubling of the first sound with the absence of doubling of the second sound in the same cases. If the left ventricle contract more slowly than the right, so that the sound of the two ventricles is separated by an appreciable interval, it would seem that the aortic valves must close later than the pulmonary, and there should be a double second as well as a double first sound. Dr. Sibson endeavoured to meet this difficulty by the following argument:—"In these cases, the systemic arteries are always in a state of great tension. When the blood ceases to be sent into the tight aorta, the instant contraction of the walls of the arteries sends the blood back upon the aortic walls and valve. The pulmonary arteries, at the commencement of the systole, are comparatively flaccid, but become tense at the end of it. The walls of the pulmonary artery begin to contract and send back a return wave again upon the trunk of the artery; but, as these walls are not always in a state of tension, they take a longer time to contract than those of the aorta and its branches. Owing, therefore, to the slowness of the pulmonary and the quickness of the aortic contraction, the latter, which is already heavily handicapped, makes up in speed what it loses in time, and the two systems of arteries deliver their backstroke at the same instant."

Now, it seems to me that this explanation, while it apparently removes one difficulty, raises another of a very formidable character. If the greater tension of the aorta, in the cases of renal disease under consideration, enable it to overtake the earlier but less rapidly and forcibly contracting pulmonary artery, it seems obvious that, in the normal condition, when the aorta and the pulmonary artery commence their elas-

tic contractions at the same instant, the much greater tension of the aorta, with its thicker and stronger walls, should react upon and close its valves before those of the more feebly contracting pulmonary artery are closed, and the result would be reduplication of the second sound as a constant and normal condition. During the last two years, since my attention has been particularly directed to this subject, I have met with numerous instances of an analogous doubling of the first sound in cases of general emphysema of the lungs, with impeded pulmonary circulation and resulting fulness and hypertrophy on the right side of the heart. In these cases, the increased tension of the pulmonary artery consequent on the obstruction in the lungs can never equal the normal tension of the aorta. However great may be the hypertrophy of the right ventricle in cases of emphysema, the thickness of its wall is never equal to that of the left ventricle. If, then, in accordance with Dr. Sibson's theory of asynchronous ventricular contraction, the right ventricle, in consequence of increased tension in the pulmonary artery, complete its contraction later than the left, and thus cause the doubling of the first sound, the closing of the pulmonary valves must inevitably be effected later than that of the aortic, and the second sound must also be doubled. The reverse, however, is the case. The second sound is single in these cases of emphysema, while the first is distinctly reduplicated.

There are anatomical difficulties in the way of accepting the theory of an asynchronous contraction of the ventricles in explanation of doubling of the first sound. The muscular fibres of the two ventricles pass from one side to the other and interlace in such a manner as appears to render the synchronous contraction of the ventricles a physical necessity. And, in watching the exposed heart of a living animal in the different stages of apnœa—first, in the stage of systemic obstruction, with distension of the left cavities, and later, during the period of pulmonary obstruction, with great distension of the right cavities and comparative emptiness of the left—I have particularly observed the uninterrupted exact synchronism of the contractions on the two sides.

A consideration of the difficulties which present themselves in relation to Dr. Sibson's theory of reduplication of the first sound in connection with Bright's disease led me to seek for another explanation of the phenomena;* and last year I ventured publicly to suggest that the true explanation is to be found in the fact that *the contraction of a dilated, and especially of an hypertrophied auricle, becomes audible, and thus the first division of the double first sound in the cases under consideration is the result of the auricular systole.* I believe that this explanation of reduplication of the first sound will be found consistent with all the ascertained facts. I was led up to this explanation by observing that the rhythm of the heart's sounds in cases of reduplication is precisely the same as that of the triple pericardial friction-sound which may often be heard in cases of pericarditis, the first element of the triple friction-sound being caused by the systole of one or both auricles roughened by lymph.

This triple pericardial friction-sound may require here a few words of explanation. For some years past, when describing the friction-sound of pericarditis, I have been in the habit of speaking of it as not merely double to-and-fro—but, in a large proportion of cases, as triple, a third sound often intervening somewhere between the other two. I said "somewhere", because until recently I could not tell at what period of the heart's revolution the third sound occurred. I got the first hint towards the solution of the problem from a very interesting clinical lecture published by the late Dr. Hyde Salter (*Lancet*, July 29th, 1871, p. 151). In that lecture, Dr. Salter described a case of rheumatic pericarditis, in which a friction-sound double over the mid-sternum became triple over the right third intercostal space, close to the sternum; and, as this triple character of the friction-sound was most marked when the stethoscope was placed directly over the right auricle, Dr. Salter said: "I feel no doubt that the third element of the sound, on passing from the surface of the ventricle to that

* A Clinical Lecture on Triple Pericardial Friction-Sound, and on Reduplication of the First Sound of the Heart (*Lancet*, May 13th, 1876).

of the auricle, is due to auricular pericardial friction." This patient recovered.

In a second case of renal pericarditis related by Dr. Salter, a single pericardial friction-sound of distinctly presystolic—that is, auricular systolic—rhythm was heard over the third costal cartilage, about an inch to the left of the sternum; and the patient dying a few days afterwards, the left auricle was found covered and roughened by lymph. "The roughening was confined to the surface of the auricle, and, therefore," Dr. Salter remarks, "the friction-sound coincided with the movements of the auricle."

Not long after the publication of Dr. Salter's lecture, a man was admitted under my care with granular kidney in an advanced stage. A few days after his admission, I noted a presystolic friction-sound, most distinct between the left nipple and the sternum; and, as the sound was evidently synchronous with the auricular systole, I stated at the bedside that it was probably caused by recent lymph on the surface of one auricle. Three days later, in addition to the presystolic friction before noted, there was a systolic friction-sound heard most distinctly over the apex of the heart, just to the left of the mammary line, the heart being enlarged. I then expressed my belief that, besides the roughening of the auricle by lymph, there was a patch of lymph near the apex of the ventricle. In the course of about a month, first the presystolic friction ceased to be heard, and then the systolic friction ceased and was replaced by a systolic blowing murmur at the apex. The patient died after being rather more than two months in the hospital; and, at the inspection, we found, as we had expected, that the right auricle and the apex of the right and left ventricles were covered by lymph, the smoothing down of the surface of which by friction accounted for the cessation of the friction-sounds which were distinctly audible when the surfaces were roughened by recent exudation. The margins of the mitral valve were thickened by lymph, and thus the regurgitant mitral murmur was explained.

And now, having learned from the study of Dr. Salter's recorded cases, and from the observation of this one case under my own care, that an auricle covered by lymph may cause a friction-sound of presystolic rhythm, I saw that in this sonorous influence of the contracting auricle was to be found the interpretation of the triple friction-sound of pericarditis with which I had long been familiar as a clinical fact, although I had not heretofore been able to explain it.

When the general surface of the heart, including both auricles and ventricles, is covered by recent lymph, the friction-sound is distinctly triple, *rub-rub-rub*, reminding one, as Dr. Salter says, of the triple sound of a canter. The first two divisions of the triple sound occur in quick succession, the third after a longsr interval; then follows a pause, and again the *rub-rub-rub* occurs. Now, if, while we are listening to this triple sound, we place our finger over the heart's apex, or over one carotid artery, and at the same time bear in mind what we have seen of the rhythmical contractions of the exposed heart of a living or a recently dead animal, we can readily perceive that the first element of the triple sound is auricular systolic, the second ventricular systolic, and the third ventricular diastolic; while the silent interval which follows coincides in time with the post-diastolic pause. The relation of the triple friction-sound to the heart's movements may be represented as follows.—

Rub	Auricular systole.
Rub	Ventricular systole.
Rub	Ventricular diastole.
Rub	Auricular systole.
Rub	Ventricular systole.
Rub	Ventricular diastole.

I have thus briefly referred to the triple friction-sound of pericarditis, for the purpose of pointing out that the rhythm of the heart's sounds in a case of reduplication of the first sound is precisely the same as that of the triple friction-sound. The triple friction-sound being represented by *rub-rub-rub*, the triple sounds in a case of reduplication may be expressed by *rat-tat-tat*. The cantering character of the sounds may be imitated by bringing down sharply upon the table in quick succession the ends of three flexed fingers, making the two first taps nearer together than the second and

third. The friction-sounds are longer and more nearly continuous, but I repeat that the rhythm is precisely the same in the two classes of cases. The relation of the triple sound to the heart's movements may be represented as follows.—

Rat	Auricular systole.
Tat	Ventricular systole.
Tat	Ventricular diastole.

Rat	Auricular systole.
Tat	Ventricular systole.
Tat	Ventricular diastole.

The reduplication of the first sound in cases of Bright's disease is usually heard most distinctly between the mamma and the sternum in the third left intercostal space; that is about the line of junction between the auricle and ventricle. The sound may be single or indistinctly double at the apex, while it is decidedly double at the third interspace and again single over the aorta. This statement of the position in which the reduplication is best heard accords with Dr. Sibson's account; but our explanations differ essentially. He states that, in this position, the asynchronous contraction of the two ventricles is best heard, while I maintain that the contraction of the tense, dilated, and often hypertrophied auricle is there heard immediately before the sound of the ventricular systole.

The question then arises, Does the contraction of the auricle afford a satisfactory explanation of the first division of the reduplicate sound? I believe that it does. It is of course admitted that in the normal state the contraction of the auricle, contrary to Laennec's original theory of the heart's sounds, is inaudible; but we have positive evidence of sound resulting from the auricular systole in two distinct morbid states. First, as a result of constriction of the mitral orifice, we have the now well-known presystolic—or, as Dr. Gairdner happily designates it—the auricular systolic mitral murmur. In these cases, the impediment resulting from mitral constriction causes a slow but forcible auricular systole with a resulting presystolic, that is, preventricular systolic murmur, followed by a short first sound, the result of rapid contraction of the partially filled left ventricle. Second, when the surface of an auricle is roughened by lymph, there occurs the presystolic, or rather the auricular systolic friction-sound. Third, as a result of obstruction in the systemic arteries, and consequent distension of the left auricle, either with or without hypertrophy of its walls, we have, as I believe, an audible auricular systole, constituting the first division of the reduplicate first sound in cases of Bright's disease. The rhythm of this auricular systolic sound—its place in the heart's revolution—is precisely the same as that of the auricular systolic mitral murmur, and of the auricular systolic pericardial friction-sound; and this identity of rhythm in the three classes of cases affords one of the strongest proofs that the sound in each case is caused by the auricular systole. The triple friction-sound of pericarditis, and the triple sound associated with doubling of the first sound, are alike suggestive of a canter.

I have before stated that the reduplication of the first sound occurs not only in connection with Bright's disease, but it is very commonly associated with the impeded pulmonary circulation resulting from advanced general emphysema of the lung. I have observed it frequently in elderly persons with degeneration and rigidity of the arterial walls; also very distinctly above and to the right of the left nipple in some cases of mitral regurgitation. There is one feature which is common to all these cases, and that is an impeded circulation either pulmonary or systemic, and the obstruction acting backwards causes distension, and by degrees hypertrophy of one or both auricles. It is obvious that an impediment commencing in the systemic arteries, or on the left side of the heart, may by a retrograde influence extend through the lungs to the right cavities of the heart.

In some cases of coexisting emphysema of the lungs and chronic Bright's disease, both sides of the heart become simultaneously hypertrophied, and the reduplication of the first sound is distinctly heard over an extensive surface. During the last year I have seen several examples of this complication. It is obvious that the theory of asynchronous ventricular contraction entirely fails to explain the reduplication which results from a simultaneous—equal or nearly equal—impediment in the systemic and in the pulmonary vessels. An equal retardation of the two ventricles would not throw one behind the other. But the auricular theory completely explains the phenomena. That a distended, and especially an hypertrophied auricle should produce sound by its contraction, is quite consistent with what we know of the causation of the normal sounds of the heart. While the first sound is caused by the tension of the ventricular walls and the auriculo-ventricular valves during the systole of the ventricle, the second sound results from the sudden tension and vibration of the arterial valves and walls during the diastole of the ventricle. In like manner, it is maintained that when, in consequence of excessive arterial pressure, there is great distension of the heart's cavities, the tense auricle contracts audibly and

causes the earlier division of the double first sound, the double sound being the result of the auriculo-ventricular systole.

That the contraction of the terminal muscular arterioles, excited by blood-contamination, the result of renal disease should act backwards through the systemic arteries and the left ventricle and auricle, so as to cause an appreciable modification of the heart's sounds, and ultimately hypertrophy of the muscular tissue of the propelling heart and of the resisting and regulating arterioles, is an interesting illustration of the correlation of physiological forces and of the intimate relation between physiology and pathology.

In confirmation of the explanation which I have given of the so-called reduplication of the first sound, I may mention that, after I had written the lecture in which I first publicly propounded this theory, my attention was directed to a recently published thesis by Dr. Exchaquet, of Paris, entitled *D'un Phenomene Stethoscopique propre a certaines Formes d'Hypertrophie du Cœur*, in which I found that my explanation of the phenomena had been anticipated.

The author of the thesis gives the results of numerous observations made by his teacher M. Potain, on that modification of the heart's sounds which Dr. Sibson called reduplication, but which the French observers designate *bruit-de-galop*. Dr. Exchaquet quotes Dr. Sibson's Lumleian Lecture, raises various strong objections to his theory of asynchronous ventricular contraction, and maintains that the presystolic element of the double first sound is caused by *an abnormally energetic and forcible contraction of the left auricle*. I was much interested to find that my explanation, arrived at quite independently, had thus been anticipated and confirmed by M. Potain, who points out that, when the chest is not thickly covered by fat, the presystolic contraction of the auricle may be seen and felt in the third left intercostal space, where, in the same cases, the *bruit-de-galop* is also most distinctly heard.

I find, however, that M. Potain looks upon this modification of the heart-sounds as being almost invariably associated with certain forms of albuminuria. As an exaggeration of a normal phenomenon, he has observed it to a very slight degree, and as a transient condition in persons free from organic disease and from functional disorder of any kind; but when the *bruit-de-galop* is pronounced and permanent, he believes it to be invariably associated with albuminuria and resulting distension of the left auricle; and, in fact, he looks upon this acoustic sign as diagnostic of certain forms of albuminuria. The author makes no reference to the very frequent association of the *bruit-de-galop*, or doubling of the first sound, with emphysema, and other conditions, resulting in an impeded circulation through the lungs, and consequent distension of the right auricle, but often unassociated with albuminuria: a class of cases of very common occurrence to which I have directed attention in this lecture.

The reduplication of the first sound, upon the interpretation of which I have dwelt so long, is not without its practical prognostic significance and value, in so far as it affords undoubted physical evidence that the impediment to the circulation, whether in the pulmonary or in the systemic vessels, is acting backward through the ventricle upon its associated auricle, and is causing some degree of auricular dilatation and hypertrophy; and, on the other hand, the cessation of the reduplication, as, for instance, in some cases of acute and transient Bright's disease, is evidence of returning freedom of the circulation, and is thus far of favourable omen.

Again, it is obviously important to observe and study this peculiar modification of the heart-sounds with sufficient care to distinguish it from any form of valvular murmur. I do not doubt that a modification of reduplication, by which the two first elements of the triple sound are blended together, so as to give the first sound of the heart a prolonged character, has often been mistaken for the murmur of mitral regurgitation; and this error of observation has been made the basis of an alarming, but wrong, prognosis. I scarcely need add that our interest and our duty alike prompt us to avoid so serious a mistake.—*British Medical Journal.*

Treatment of Dysentery by Nitrate of Sodium (*La France Medicale*, 1877, p. 91; from *Moniteur Therapeutique*).—Nitrate of sodium in large doses acts as an ordinary saline purgative. Like the salines, also, it constipates if in part absorbed. It is for this reason that it has frequently proved useful in diarrhœa and dysentery. Caspary (*Deutsche Klinik*) recommends it very highly. The dose differs according to the severity of the case. In true dysentery, twenty-five grammes (about ʒvj) may be administered during the twenty-four hours, in divided doses. Should there be any inflammatory complication on the part of the small intestine, the dose should be less,—fifteen to twenty grammes (ʒiv ad v). The medicine should be administered in a mucilaginous mixture, which should

be warmed, cold being injurious in dysentery. When the case is a light one, improvement will be noticed within twenty-four hours. In severe cases several days are required to produce a favourable effect. If within forty-eight hours no improvement is observable, and if the dysentery is rectal, the dose should be increased. If, on the other hand, tenesmus having ceased, there still remain symptoms of inflammation in the small intestine, the dose should be reduced to eight or even five grammes. An increased number of stools indicates too large a dose.—*Phil. Med. Times.*

TREATMENT OF CATARRHAL JAUNDICE.

Dr. Krull, of Gustrow, Mecklenburg (*Berlin. Klin. Wochenschrist*, No. 12, 1877), recommends enemata of cold water as an excellent remedy in the above disease. One or two litres of water at a temperature of 59 degrees Fahr., which may be gradually increased to 72 degrees Fahr., are to be slowly injected into the rectum by means of an irrigator once a day. The patient is to retain the water as long as possible. The first effect of this treatment is the rapid disappearance of oppression in the epigastrium, as well as of nausea and headache ; the appetite quickly returns. In half of the cases thus treated (eleven in all) the fæces were tinged wiih bile after the second injection ; and in the cases of longest duration, in one of which the disease had existed for more than a year, their normal colour returned not later than the fourth day. The largest number of injections used in any one case was seven. Most of the patients had previously been treated unsuccessfully by the ordinary methods. Dr. Krull explains his results on the supposition that the cold water not only increases the peristaltic action of the bowel, but also excites sufficient contraction of the bile-ducts to enable them to overcome the obstacle due to catarrhal swelling or inspissated mucus at the entrance of the duodenum.—(*Clinic.*)

Dr. Cameron, late house surgeon to the Montreal General Hospital, has been presented by his friends with a life-governorship of the hospital.

ON THE USE OF THE CHLORATE OF POTASSA IN DIPHTHERIA AND PSEUDO-MEMBRANOUS CROUP.

BY THOMAS M. DRYSDALE, M.D.

* * * * * *

"I have been for many years in the habit of prescribing a saturated solution of chlorate of potassa, thirty grains to the ounce ; and giving, according to the age of the patient, a teaspoonful, a dessertspoonful, a tablespoonful, or even a larger quantity, every three hours, in mild cases ; but in cases of extreme urgency I have given as often as every half hour, and with the happiest results."

These doses, you will perceive, are much larger than those generally recommended, for each tablespoonful contains fifteen grains, each dessertspoonful seven and a-half grains, and each teaspoonful three and three-quarter grains, and are given according to the age of the patient. For instance, to a child under two years old, a teaspoonful ; from two to ten years old a dessertspoonful ; and over this age a tablespoonful, which is also the dose commenced with in adults ; the dose being repeated at the intervals already stated, according to the severity of the case. A child, then, of one year of age, suffering from a moderately severe attack of diphtheria, will take, if the medicine is given every two hours, forty-two grains in twenty-four hours. Another, under ten years of age, will take, in the same time, one hundred and eighty grains. While one still older will take three hundred and thirty grains. If the case is severe, of course much more will be taken.

In an immense number of these cases I have continued the use of this salt for days, and in some for weeks, without seeing any evil results follow, except a little gastro-intestinal irritation in some young children, which I have found readily controlled by combining opium with the mixture. In fact, we need not fear to give this salt even more freely than has been here recommended, as the experiments of Isambert, Fountain, Tully, and others prove ; but when we can obtain all the good results with these doses, of course it would not be wise to give larger.

The formula that I am in the habit of using is as follows :—

℞.	Pulv. potassæ chlorat.	ʒij
	Syr. limon.	fl ʒj
	Aquæ,	fl ʒiij. M.

This gives a mixture which is pleasant to the taste, and is readily taken by children ; an important fact, the advantages of which need not be pointed out to you.

The use of the chlorate of potassa in diphtheria and membranous croup has some advantages not possessed by other remedies. All local treatment, except by the solution itself, is unnecessary, for, that it has a solvent action on the membrane, has been proved by M. Barthez, and the parts involved are so frequently bathed by swallowing it, that a true and free topical application is made every time it is administered. Taking advantage of this local action, I direct the nares to be injected with it when they are affected ; and in cases of croup, particularly after tracheotomy, apply it by means of the atomizer.

Another advantage is that other remedies may be used in connection with it. For instance, when there is much spasm of the larynx emetics may be given, and the chlorate used after them ; or, when the case is decidedly asthenic, iron and quinine, stimulants and nourishment may be administered at the same time.

This treatment has proved so successful that when called to an ordinary case of diphtheria, before it has reached the larynx, or travelled upward toward the brain, producing convulsions, I feel but little apprehension ; for, in a large practice of many years, but few cases have been met with which have resisted it.—*Med. and Surg. Reporter.*

Sick Headache.—This troublesome affection has recently been treated with a certain degree of success by the citrate of caffeine, especially in the form of the "granular effervescent" salt, which is now produced in this country. A heaping teaspoonful, containing one grain of the citrate, is the dose to begin with, and may be repeated every hour or two.

Surgery.

DISLOCATION OF THE LONG HEAD OF THE BICEPS FLEXOR CUBITI MUSCLE. ITS DIAGNOSIS AND TREATMENT.

BY JAMES S. GREEN, M.D., ELIZABETH, N. J.

(Read before the Union County, N.J., Medical Society, April 3, 1877.)

On the 14th of January last, I was called to see a lady, aged 52 years, of large frame and very fleshy, who was suffering severe pain in her right shoulder, which had, within the last three months, been the seat of two injuries, occasioned by violence. The history of her injuries was as follows:—"Early last November she fell upon a slippery front door step and was precipitated to the sidewalk, when she felt she had injured her shoulder. She rode immediately home, where, getting from her carriage, she was improperly supported by her attendants, and fell again, when she felt the bone, as she termed it, return to its place, and her acute symptoms were relieved. She suffered a week or more from the usual soreness, and then considered herself well again.

About ten weeks after the first accident, while attempting to drive a bird into its cage, striking at it overhead with a newspaper, she was seized with violent pain in the same shoulder, and the arm fell to her side. The next day I saw her. She was suffering severe pain in the shoulder-joint upon motion, especially when the arm was moved backwards or upwards. The head of the humerus could be felt rotating in the glenoid cavity ; there was no fracture of the acromion, coracoid, or the scapular end of the clavicle ; no flatness of the shoulder ; the arm could be brought closely to the body, and was most comfortable while there. On the anterior and inner surface of the shoulder there was a space about a finger's width and a finger's length, which was exquisitively tender on pressure. Any motion putting the tendon of the *pectoralis major* on the stretch, gave intense pain at this place. Movement at the arm backward passively, or by the action of the *latissimus dorsi*, increased violently a pain along the track of the musculo-cutaneous nerve,

which pain, however, was constantly present as far down as the external condyle of the humerus. The patient informed me that she was obliged to bind her arm tightly to her body during the night and day, so intense was the pain upon the slightest motion. *Active* flexion of the forearm upon the arm to an angle less than a right angle, gave most acute pain at the shoulder.

Having suffered with irregular heart action, probably due to a fatty heart, she was unwilling to take an anæsthetic, and very averse to having an effort at manipulation made to relieve her trouble. Nothing was done but the application of a sling and bandage to support and keep the arm quiet, and the use of anodyne lotions to the shoulder.

Ten days after the last accident, being relieved from her sling and bandage, she went out on the piazza of her house to fasten a window shutter. The platform being slippery, she felt herself falling, and tried to catch hold of the shutter with her left hand, but missed it. She then threw her injured arm upward and backward in her effort to save herself from falling, and, being seized with the most agonizing pain, felt something return to its place with a snap.

Two days after this occurrence I saw her. The pain at the shoulder had remarkably diminished since my last visit, and the power to use the latissimus dorsi and deltoid muscles without severe pain had returned. The patient dated her improvement from the time she fell on the piazza. She steadily improved from this time under the use of passive motion and frictions, and has now entirely recovered the use of her limb.

The question arose in my mind, what was the lesion? It was no common accident, and one upon which very little has been written.

Dislocation of the humerus was differentiated by the presence of the head of the bone in the glenoid cavity, and by the fact that the arm could readily be brought to the side, and was more comfortable in that position.

Fracture of the neck of the humerus was also impossible, because the head of the bone rotated with the shaft.

Diastasis of any of the epiphyseal extremities of the bones about the shoulder joint was precluded by the patient's age.

There was no fracture of the acromion or coracoid processes of the scapula, or the acromial end of the clavicle.

What injury, then, could account for the violent pain and inability to move the part? *Dislocation of the long head of the biceps muscle* from its bed in the bicipital groove of the humerus alone answers the question satisfactorily.

When we review the surgical anatomy of the part, and interpret the symptoms by its light, the explanation becomes interesting and convincing. The long head of the biceps, arising from the upper edge of the glenoid cavity, passes across the head of the humerus in a special sheath taken from the synovial lining of the joint, and, crossing between the tuberosities of the humerus, enters the bicipital groove, in which it is held by a fibrous bridge. At the *anterior* lip of the groove, the tendon of the pectoralis major is inserted, and into the *posterior* lip the latissimus dorsi and teres major have their insertion. Between the bone and the biceps the musculo-cutaneous nerve passes, after it has perforated the coraco-brachialis muscle.

Now, the long head of the biceps, after its dislocation from the groove, lies on and beyond the anterior edge of the groove, under the tendon, and at the insertion of the pectoralis major muscle. Consequently, the arm being brought closely to the body, there is the least pain, because the tendon of the pectoralis major muscle is thereby relaxed and the injured groove and musculo-cutaneous nerve is not pressed upon. The use of the deltoid muscle produces pain because it puts the pectoralis major secondarily on the stretch. The action of the latissimus dorsi and teres major also gives pain, because they are antagonistic to the pectoralis major. Flexion of the forearm upon the arm gives great discomfort, for the obvious reason that the motion is produced by the injured muscle. Pain along the distribution of the musculo-cutaneous nerve, down to the external condyle, is due to the unnatural pressure of the nerve upon the bone by the displaced tendon.

Now, having diagnosed our case conclusively, what are the indications for treatment? Having

placed the patient under an anæsthetic, bend the forearm upon the arm at an angle *greater* than a right angle, rotate the hand outward, and at the same time carry the arm upwards and backwards. The rotation of the hand will turn the shaft of the bone and bring the bicipital groove toward the displaced tendon, while the upward and backward motions of the arm tend toward the same result. This plan of treatment is drawn from the accidental mode on which my patient reduced her own dislocation, and is one which, as far as I am aware, has never been before advised.

The surgical literature upon this subject is extremely meagre, and no directions are given in the books for the relief of this distressing condition, except, perhaps, by Dr. Gross, in his work on Surgery. The advice there given is to relax the tendon and press it in place with the fingers, a procedure which will not be followed with the success desired.

Dr. Frank Hamilton, in his work on *Fractures and Dislocations*, page 578, under the head of "partial dislocations" of the humerus, gives a case reported by Alfred Mercer, of Syracuse, New York, in the *Buffalo Medical Journal* for April, 1859. Also, in *Pirrie's Surgery*, edited by John Neill, M.D., page 255, we find an account of a case in which an autopsy was held, and the tendon was found to be dislocated.

Mercer's case was, in many particulars, identical with the one just reported above.—*Virginia Medical Monthly.*

Dressing for Burns.—We find in the *Lyon Medical* the formula for a preparation recommended by Rice as presenting all necessary qualities required in dressing burns. In a litre (1¾ pints) of cold water 440 grammes (14 ℥ 1 ʒ) of clear glue in small pieces is softened; solution is completed by the aid of a water-bath, 60 grammes (338.8 grains) of carbolic acid are then added. Evaporation is continued until a bright pellicle forms upon the surface. Upon cooling, the mixture becomes an elastic mass, which may be liquified by heat whenever wanted for use. This is applied by means of a brush, and in one or two minutes, forms a brilliant, flexible and almost transparent coating.—*Jour. de Med. et de Chir. pratiques*, Feb., 1877.

CASE OF UNUNITED AND ADHERENT TENDO ACHILLIS.

The treatment of cases of ununited tendo Achillis, the result of an external wound, has hitherto been considered very unsatisfactory, more particularly when the divided ends have become much retracted and adherent to the skin and surrounding textures. The retracted ends of the tendon in such accidents have occasionally been brought together and secured by silver wire or other sutures; but the inflammation and suppurattion which usually follow this proceeding have, in the majority of cases, rendered the operation a failure. Now, however, that we have, in the antiseptic treatment and catgut suture, sure means of making the necessary wound, and securing the divided parts without risk of suppuration, I am encouraged to hope that the condition of ununited tendons will, in the future, prove more amenable and satisfactory in regard to its treatment. In confirmation of this hope I report the following case, which thoroughly proves the success of the antiseptic treatment in a very aggravated example of the accident under consideration. From the condition of the divided ends of the tendon and surrounding tissues, as accurately ascertained during the operation, I am of opinion that nothing short of the treatment adopted, or of some similar interference, would have restored the tendon to its proper state and usefulness.

J. P——, aged thirty-seven, a strong healthy sailor, was admitted into my wards in the Royal Infirmary on the 10th March, 1877. Rather more than two months before admission the patient accidentally struck the back of his left leg with an axe and inflicted a wound which cut across the tendo Achillis a little above the ankle. After the injury the leg was kept in a straight position until the wound healed; but when the patient commenced to move about he found that he had little or no control over the foot. Finding that he was not improving, and being quite unfit to follow his employment, he applied for advice to Dr. Wilson, of Greenock, who sent him here to be under my care.

An examination of his condition showed a cicatrix across the lower end of the tendo Achillis, which had been completely divided. There

was a distinct interval of fully one inch and a-half between the divided ends, and there was not the slightest attempt at any union between them. The upper end was adherent to the skin, and when the muscles of the calf were put into action the tendon only drew upon the skin and surrounding tissues, and had no direct influence upon the heel. In consequence of this condition the patient's foot was useless, and he was quite unable to follow his employment.

On the 13th of March I performed the following operation, with the hope of relieving his unfortunate state. The leg, as far as the knee, was rendered bloodless according to Esmarch's plan, and then an incision about three inches long was made on the inner margin of the tendon, so as to expose its ends where divided. A little careful dissection thoroughly disclosed the affected parts, when it was found that the tendon had been completely divided about one inch and three-quarters from its insertion into the os calcis. The divided ends were retracted for about an inch and a-half, and between them was a thin-walled cyst or sac containing a little fluid serum tinged with blood. There was no trace of any new organized material forming a bond of union between the divided ends, but the lower end was rounded off in the most perfect manner. The upper end was somewhat enlarged and jagged in appearance, and was adherent to the skin and cicatrix of the external wound. Having first freed the upper end from its attachment to the skin and the cicatrix, I pared both ends of the tendon, removing a thicker slice from the lower than from the upper one, on account of the rounding off of the former. Then, by flexing the leg to almost a right angle, the ends were brought in contact and secured by means of two prepared catgut sutures of double "medium" thickness. The limb was then firmly adjusted in this flexed position by applying the apparatus usually employed in the treatment of ruptured tendo Achillis. The operation was performed under the antiseptic spray, and the wound was dressed in the usual way. The antiseptic dressing was continued, and changed as often as required, until April 1st, when, the wound being quite superficial, boracic lotion was substituted for it. Three weeks after the operation the parts were carefully examined, and, as good union had taken place between the ends of the tendon, the limb was slightly straightened, so as gradually to stretch the new material and obtain the proper lengthening of the tendon. This treatment was carefully continued, and on April 22nd it was found that the result of the operation was perfect. The patient had entire control over the foot, the union of the tendon was strong and complete, and the heel could be brought to the ground without any difficulty.—*London Lancet.*

We subjoin the conclusions of a paper on "The Anhydrous Dressing of Wounds," which lately appeared in the *London Lancet*, from the pen of Robert Hamilton, F.R.C.S., Liverpool :—

To sum up as shortly as possible, I would say that in the treatment of compound fracture, opening of joints, and large incisions, I advocate Lister's method with this modification, that the subsequent dressings after the first should be under the balsam spray rather than the carbolic spray, and that the material placed next to the wound should be dry, believing that the free use of the carbolic spray upon the wound, the washing out of the latter, as is too often done, with carbolic lotion, and the application of lint freshly moistened with carbolic lotion, all lead to a production of pus.

Next, that, as the almost equal success which is obtained in the hands of many surgeons from the use of Friar's balsam merely, in the dressing of small wounds, and even compound fractures, must be due as much to the avoidance of moisture, or rather of water, as it is to the antiseptic properties of the balsam, therefore it is a strong argument in favour of our being very chary in the use of the former.

Thirdly, that the application of the antiseptic principle in the dressing of burns, scalds, and lacerated wounds, with loss of skin, has led to no better results than many of the other methods in vogue.

And, finally, that in so far as we can keep an abraded surface free from all external agencies, just so far shall we succeed in facilitating the healing process. Amongst the external agencies which are injurious water takes a more prominent position than the atmosphere.

Therefore, the direction in which further advances in the dressing of large lesions is likely to be successful is certainly in the avoidance of heat and moisture.

CASE OF FETID DISCHARGE FROM NOSE, TREATED BY A NEW OPERATION.

(Under the care of Mr. Harrison Cripps.)

A. B——, aged thirty, probably syphilitic, struck the bridge of her nose five years ago in falling against the corner of a table. She suffered considerable pain at the time, and hæmorrhage was profuse. The nose remained tender and swollen for two or three months, and the nasal passages became so much obstructed that she was scarcely able to breathe through them.

Six months after the injury a fetid discharge from the nostrils commenced, and continued up to November last, when she first presented herself at the hospital. The nose was at that time considerably flattened, and both nostrils were reduced to little more than pin-hole apertures. The soft parts between the nose and upper lip were deeply ulcerated, and flowing over this ulcerated surface from the nostrils was a thin ichorous discharge. The fetor arising from the discharge was beyond all description, and pervaded the room to an extent scarcely bearable. She complained bitterly of her condition, being an object of aversion to all her friends. The introduction of a probe into the nostrils was a matter of some difficulty, and caused much pain. On the first examination no dead bone could be detected. The patient was ordered full doses of iodide of potassium, and directed to wash out the nasal cavities thoroughly with Condy's fluid, applied after Thudichum's method. She continued under observation till the middle of January, but without any marked amelioration in her condition. As dead bone could at this time be detected with a bent probe, and the patient was anxious that something should be done to relieve her, she was operated on according to the plan advocated by Rouge, of Lausanne.

Chloroform having been administered and the patient placed on her right side, the right corner of the upper lip was seized by the operator, and the left by his assistant; by this means the lip was everted and drawn upwards, while the soft parts were separated by a clean sweep of the scalpel, cutting upwards with its edge kept close to the bone. This incision extended from the second bicuspid tooth on the right side to that on the left. By drawing upon the upper lip, the nose, together with the soft parts forming the anterior portion of the face, could be easily raised in such a manner as thoroughly to expose the nasal fossæ. A large quantity of dead bone could now be both seen and felt. The dead portions of the bone were quite loose, and were easily removed with the finger and polypus forceps. After the removal of the bone, the forefinger could be passed quite back to the posterior wall of the pharynx, the cavity feeling soft, velvety, and entirely free from dead bone. The operation was completed by replacing the lip in its natural position and retaining it there by a single strip of plaster placed transversely across the face. There was scarcely any bleeding during the operation. The wound healed rapidly by first intention, without the slightest scar or deformity. Six days after the operation a careful examination failed to detect the line of incision, so complete had the union become. The patient has been seen many times since; all discharge has ceased, the ulceration of the upper lip has healed, and there is not the least fetor to the breath. The pieces of bone removed comprised a portion of the left palate, the left inferior turbinated, and a considerable portion of the vomer. These pieces were thickly coated with a hard, mortar-like substance, exhaling a most fetid odour.

That this method of operating is one of the greatest value and importance cannot be doubted, and would seem justifiable not only in cases of ozœna, but also in some cases of polypi or other growths, for the entire removal of which a considerable space and more complete view are necessary.

Ozœna, according to the most recent observations, is dependent in the large majority of cases on a sequestrum or carious portion of bone, and it is not impossible that some of the remaining cases, supposed to be due to a constitutional cause, really arise from a local, although undetected, source of irritation. For many of the cases narrated by Rouge an examination prior to the operation had failed to detect a cause, but after the anterior nares had been exposed in no case did he fail to find a sequestrum or carious portion of bone. In one instance a portion of the bony septum was found dead, lying between the two layers of mucous membrane, a condition

of things which accounts for its not being detected prior to the operation.

In the case above narrated it was not found necessary to cut through the cartilaginous septum at its attachment to the anterior nasal spine, it having been previously destroyed by disease, but in ordinary cases before the nose can be lifted this should be done with scissors.

The ease with which the operation was performed, the thorough exposure of the nasal fossæ, the absence of hæmorrhage, and the beneficial results obtained, entirely agree with the cases described in the able paper by Rouge.—*London Lancet.*

ECRASEURS.

The ease, rapidity, and immediate safety with which the tongue can be removed by the galvanic ecraseur ought not to lead surgeons to overlook the serious drawbacks to this employment of a most valuable application of electrical science to surgery. These drawbacks are threefold, only one of which was noticed by the various speakers at the last meeting of the Clinical Society when this subject was discussed. The great danger in the use of the hot wire arises from the putrefaction which takes place in the slough over the stump of the tongue. This poisons the air passing into the lungs, which then sets up acute and very fatal bronchitis, with, in some cases, a low form of pneumonia. We believe that most of the deaths after this operation are produced in this way.

Another danger is septic absorption from the wound, causing cellulitis around the larynx, pharynx, and great vessels of the neck, with œdema glottidis; and when the slough separates, the patient runs a serious risk of secondary hæmorrhage, which is not unfrequently fatal. These dangers are so great that many surgeons are returning to the use of the simple wire ecraseur, which, although less convenient at the time of operation, is, on the whole, safer. The wire severs the tissues without leaving a thick slough to putrefy and slowly separate, and primary hæmorrhage may be surely prevented by proceeding slowly and carefully. Rapidity in action is the danger, for the wire has to *crush*, not *cut*, its way through. If this precaution be taken, the operation should be as bloodless as if the hot wire had been used, and the consequent risks to the patient far less.—*London Lancet.*

ON A UNIQUE CASE OF INOCULATION OF THE EYE BY VACCINE VIRUS.

In the *Medical Examiner*, Dec. 21st, Mr. Anderson Critchett relates the following remarkable case: "At the beginning of last September I was consulted by a medical man in large practice in the north of England. On examining his right eye I found the following condition:—The lids and conjunctiva were swollen and red; there were lachrymation and photophobia, and the eye resented even the most gentle examination. A large greyish-white opacity could be seen extending over the outer two-thirds of the cornea. The centre was raised, and from its general aspect and colour conveyed an impression of sero-purulent infiltration between the layers of the cornea. The condition of the anterior chamber and iris appeared to be normal. The history I received of the case was as follows:—About three weeks previous to his visit to me, this gentleman was vaccinating an infant, and, whilst stooping over the arm, a sudden and violent movement on the part of the child jerked the charged ivory point from his fingers into his right eye. Suspecting that some of the lymph had come into contact with the cornea and conjunctiva, he immediately and assiduously endeavoured to wash it out, but, as the sequel proved, without success. Inflammation supervened at the end of twenty-four hours, and was accompanied by severe symptoms, the cornea becoming gradually implicated, and developed such a form of opacity, combined with interstitial infiltration, as left no doubt that inoculation of vaccine virus had occurred, resulting in the formation of a true vaccine pustule.

"Three months have now elapsed since his first visit, all traces of inflammation have passed away, the conjunctiva has resumed its natural colour, the lachrymation and intolerance are gone, and the eye opens as readily as its fellow; but, occupying rather more than the outer half of the cornea, is a dense white opacity, which most seriously compromises the vision. As the area of clear cornea has sensibly increased since the subsidence of active inflammation, it is not improbable that further improvement may take place during the next few

months; the question will then arise how far it may be expedient to endeavour to obtain an increase of the present very limited range of vision by means of a small iridectomy inwards." In remarking on the case, which Mr. Critchett says is, as far as he is aware, the only one of the kind on record, he considers that it is of interest not only on account of its rarity, but also "as illustrating the great danger of allowing vaccine virus to come into contact with the eye, since the absorbent power not only of the conjunctiva oculi, but also of the surface of the cornea itself, is so great as to develop in the manner described a complete vaccine pustule resulting in a permanent corneal opacity. It may also suggest a possible explanation of the manner in which the cornea is frequently affected in smallpox."—*(Monthly Abstract.)*

INTUSSUSCEPTION OF THE TRACHEA.—Dr. Lang, of Oehringen, reports the following interesting case:—A man about twenty-eight years of age, slipped while climbing into a plum tree, and fell, but his feet catching in the branches, he remained hanging head downwards. He made violent efforts to raise his body so as to grasp the branch but was unable to do so, and remained in this uncomfortable position an hour before help came. Immediately after the accident dyspnœa set in, and increased from day to day. It was especially severe, and even bordered on suffocation when the patient let his head fall forward; when he held his head erect with the chin elevated the symptoms were relieved, and his condition was bearable. He wore a stiff, high stock, in order to keep his head in this position. Many physicians were consulted by him, but none could discover the cause of the dyspnœa. Percussion and auscultation revealed nothing abnormal. Ten weeks after the accident the patient committed suicide. The autopsy revealed great enlargement of the space between the second and third tracheal rings, the stretched and elongated membrane being at the same time relaxed. When the head was flexed on the breast, the lower part of the trachea telescoped the upper part, the third tracheal ring being forced inside the second, and in this way the suffocative attacks were produced. *Memorabilien*, 11, 1876.—*Medical Record.*

ON NECROSIS WITHOUT SUPPURATION.

BY W. MORRANT BAKER, F.R.C.S.

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The author proceeded to the consideration of the question which arose with respect to conditions so remarkable; extensive necrosis, without the formation of pus, being so rare as to be almost unknown to surgical pathology. The following were the conclusions to which the various facts and arguments brought forward by the author seemed to lead. 1. Nearly the whole of the shaft of a long bone may perish, and nevertheless, suppuration, after several weeks and months, and possibly even years, may be still absent. 2. Necrosis of a long bone may, in the absence of suppuration, closely simulate malignant disease, even to the extent of undergoing so-called spontaneous fracture; and the latter event may not, for at least many weeks, be followed by suppuration. 3. This apparently strange deviation from the course of the symptoms usually accompanying necrosis is probably due to the fact that the death of the bone is the last of a series of changes of which the earlier consist of chronic inflammation, with hypertrophy and sclerosis. 4. The symptoms of necrosis occurring in the course of chronic osteitis, more especially in adults, may be expected to pursue and do pursue a course which is different, in many respects, from that which is characteristic of the more common examples of necrosis. Suppuration is not an early event, usually, in cases of necrosis from chronic osteitis. 6. In such cases of necrosis, the endosteum as well as the periosteum contributes a large quantity of new bone. 7. It may be well, for distinction's sake, to term this variety of necrosis, in which the sequestrum is enclosed between periosteal and endosteal new bone, intra-osseous necrosis, whether with or without suppuration. 8. There exist cases of intra-osseous necrosis in which complete removal of the dead bone by a surgical operation is, from the nature of its connections, a practical impossibility; and for which, therefore, if the symptoms be sufficiently distressing, amputation is the best remedy. 9. In favourable cases, and when the disease is not extensive

the surrounding parts, after suppuration, may heal, although some dead bone is permanently confined within its new sheath; the separation of the dead from the living being indefinitely postponed. 10. The peculiarity of the case which forms the text of the paper is to be found rather in the variety of spontaneous fracture and of opportunities of examining the bone by section in cases of necrosis from chronic inflammation at an early stage before suppuration has occurred, rather than in the nature of the case itself.—*Brit. Med. Journal.*

HYDROPHOBIA CURED BY INHALATION OF OXYGEN.

We have the authority of Schmidt and Lebedew for the following case:—

A girl, aged twelve, was bitten by a rabid pup, in the hand, on January 7th, 1876. The wound extended into the subcutaneous cellular tissue; there was scarcely any bleeding; it was at once cauterized with lapis, and had entirely healed on the seventh day. The child had suffered an attack of diphtheria three months before, which had left paralytic aphonia behind it. About the time when the wound closed she was observed to be uncommonly excitable. On the seventeenth day severe dyspnœa suddenly set in; inspiration free; expiration difficult, interrupted in character; deglutition almost impossible; pulse rapid; fingers contracted. In the course of twenty-four hours neither urine nor fæces were voided. The inhalation of about three cubic feet of oxygen produced immediate amelioration of the symptoms, and within two and a-half hours apparently restored her to her former condition of health. The next day she had a more severe attack, with tonic spasm of the muscles of the back and limbs; respiration spasmodic; complete loss of consciousness. These symptoms were relieved in forty-five minutes by the inhalation of oxygen. Slight remaining dyspnœa was treated in the same manner for the following ten days, with the addition of *camphora monobromata*, which was given for three weeks. In the first part of February she had paralysis of both lower extremities for two weeks; since then she has been entirely well, excepting the aphonia, which existed before she was bitten.—*Wratschebnija Wedomosty*, No. 32, 1876, and *Allgemeine Medicinischi Central Zeitung*, No. 69, 1876.—*Med. and Surg. Reporter.*

The Benzoline Cautery.—One of the most beautiful instruments lately placed at the service of the profession is the Benzoline Cautery. It is a French invention and may be thus described: A metal cautery of any shape is hollow, containing a double tube through which a current of benzoline vapour, mixed with air, can pass, going forwards in one tube and returning by the other. The benzoline vapour and the air are mixed together and the mixture forced through the cautery by means of an apparatus like Dr. Richardson's spray-producer. In using it, the cautery is first heated by a spirit-lamp to a moderate temperature, quite below the red-heat. Then the lamp is taken away and the benzoline mixed with air pumped through the cautery by the contrivance described above. The mixture ignites and raises the cautery to a red-heat, which can be kept up as long as may be desired by simply working the "spray-producer." Everyone who knows what a troublesome and complicated affair the galvano-cautery is, will appreciate the value of this most elegant invention.—*Students' Journal.*

Acute Traumatic Tetanus Treated Successfully with Chloral Injected Hypodermically.—Mr. J. H. Salter records (*Practitioner*, Dec., 1876) the details of a case of acute traumatic tetanus, resulting in recovery under the treatment of repeated hypodermic injections of chloral, which he believes to be the first case treated successfully by this method. The disease resulted from a wound received during a fit of drunkenness, and followed by exposure to unusual cold, in a subject debilitated by habits of intoxication and low in the standard of intellectual development. The treatment consisted in wearing out the acute character of the disease by the continued exhibition of the drug; neutralizing the tetanic poison, so to speak, as fast as it was secreted: or, in other words, depolarizing the nervous centres excessively charged by the morbid processes of the disease.

Traumatic Tetanus Cured Chiefly by Curare.—In a case of traumatic tetanus under the care of Mr. Durham at Guy's Hospital, curare was administered hypodermically, at intervals of about three hours during fourteen days. The medicine lessened the frequency and severity of the fits. The dose was at first $\frac{1}{200}$ of a grain, increased to $\frac{1}{100}$ and $\frac{3}{200}$ of a grain. Eserine was tried without any apparent benefit. The only other medicines used were two $\frac{1}{4}$ grain doses of morphia hydrochlorate and three one drachm doses of succus conii.

Midwifery.

LOCAL TREATMENT OF PUERPERAL FEVER.

Starting from the standpoint that the febrile affections which follow parturition, and which are generally comprehended in the expression "puerperal fever," are due to the introduction of septic matter from without, and only acquire their specific character from their seat of origin, and from the peculiar condition of the generative organs existing at the time, Dr. Heinrich Fritsch, of Hale, recommends the systematic adoption of certain antiseptic measures, not only with a view to prevent infection by the hand of the accoucheur or midwife, but also to remove and destroy any decomposing secretions which may develop in the uterus itself. In the first place, before any examination is made, the hands are to be well washed with soap and then scrubbed with a nail-brush and a solution of carbolic acid. The most convenient arrangement for preparing this solution is to have a number of thirty-grammes bottles filled with concentrated carbolic acid dissolved in glycerine (thirty grammes acid to three glycerine), and to take one or two in the pocket when called to a midwifery case. By measuring out a litre of water into a basin, and adding the contents of one bottle, a solution of a proper strength is at once ready for use. Any instruments that have to be applied must also be previously disinfected. Instead of ordinary oil, carbolic oil must alone be employed to grease the hands and instruments. The patient herself is, if possible, prepared by a sitz-bath, in which the vulva and perineum are carefully cleansed with soap. The vagina is then washed out with carbolic acid solution, with the remainder of which the vulva is washed for the second time, and any incrusted hairs are, if necessary, removed with the scissors. Contrary to what might be theoretically expected, the injection of dilute carbolic acid into the vagina does not render the parts either rigid or rough, and the finger can scarcely distinguish between their condition before and after the irrigation. After the birth of the child, attention must especially be directed to maintaining a free escape for the lochia. In the ordinary position of the patient, with the buttocks slightly depressed below the level of the surrounding portion of the mattress, the lowest part of the hollow of the sacrum is lower than the posterior commissure, so that liquid has to collect and rise to a certain level before it can escape outwards. Hence, a greater or smaller quantity will always remain behind if nature be left to herself, and may thus set up decomposition in the secretions which escape from the uterus later on. Moreover, the lochia tend to escape at the upper part of the vulvar aperture, and not at the posterior commissure, owing to the way in which the labia overlap and become adherent to one another, so that a considerable quantity of fluid may be retained in the vagina, and there undergo those changes which are so liable to give rise to septic infection. On these and other considerations Dr. Fritsch founds his method of vaginal and uterine irrigation, which consists in injecting a 2 per cent. solution of carbolic acid (salicylic acid has been found to be too feeble an antiseptic), at a temperature of 88° Fahr., into the generative cavity by means of an irrigator containing at least a litre (two pints) of liquid. The instrument must not be raised higher than one and a-half to two feet above the patient's body, and it may be necessary to use two or three litres of the solution before the liquid returns completely colourless. For the injection of the uterus, Fritsch finds the best form of catheter is one made of German silver, thirty centimetres long and six centimetres in circumference (to be obtained from Baumgartel, of Halle), and which has a curve somewhat greater than the midwifery forceps. In those cases in which there is slight difficulty in introducing the catheter, there is the greatest probability of the retention of fluid in the uterus, owing to kicking from anteversion of the organ. The introduction of the catheter must be invariably controlled by the finger in the vagina. The ordinary dangers which are supposed to result from post-partum digital examination are prevented by the presence of the antiseptic, and the finger is able to detect and to loosen adherent clots, which irrigation alone has not force enough to detach, and which might become sources of putrefaction and infection if allowed to remain. Dr. Fritsch

ordinarily irrigates three times a day, at six, one, and eight o'clock; while the vagina is washed out by the nurse every three hours. While vaginal irrigations should be a *sine quâ non* in the after-treatment of every parturient woman, Dr. Fritsch limits the irrigation of the uterus to cases where an operation has been performed, especially where the fœtus was dead and decomposed; to cases in which liquor ferri perchloridi has been injected into the uterus to arrest hæmorrhage, and in which the formation of clots is an essential concomitant of the treatment; and lastly, to cases in which fever has existed for several days when the practitioner is called in (as may be the case when the woman has been delivered by a midwife), provided the lochia are still present.

The advantages derived from irrigation under such circumstances may be summed up as follows: 1. After one or two injections the vulvar aperture ceases to be painful and tender, even though it may have undergone considerable laceration; the introduction of the finger becomes painless, œdema rapidly subsides, and wounds heal without the formation of a definite granulating surface. 2. The lochial discharge rapidly diminishes in quantity, the only exception being when irrigation is used after the injection of perchloride of iron into the uterus, their prolongation being here probably dependent on the destructive action of the perchloride on the tissues of the uterus, so that a considerable period must elapse before the whole of the sloughs are thrown off. 3. The uterus undergoes involution quicker than under expectant treatment. 4. *The temperature falls after the first injection.* The influence of irrigation on the pulse is less marked, especially if there has already been severe hæmorrhage or fever of several days' duration. By this method Dr. Fritsch had succeeded in saving severe cases of puerperal fever in which the first injection was made on the fourth to the sixth day after delivery, with a temperature of 40° Cent. (104° Fahr.) or higher; and his experience as assistant for many years in the obstetric clinic at Halle is sufficient guarantee for his statement that these cases were really of the most serious kind. The irrigation of the uterus must be continued for at least five days, or in any case until the complete cessation of febrile symptoms. As a rule, Dr. Fritsch irrigates the uterus for the last time on the second evening on which the temperature remains normal, but the vaginal injections are continued for another week, as occasionally fetid lochia and a return of fever have been observed when they have been left off too soon. There need be no fear that pain or secondary hæmorrhage will be excited by irrigation; practically, they are not found to occur. The patients themselves have no objection to the treatment, provided the medical attendant explains to them its object. Collapse only occurs where there has been much loss of blood or several days of fever, in such mainly when the liquid has been injected too cold. In carrying out the method much will depend on the tact and care of the medical man. A few spoonfuls of wine may be given before and after the injection. Internally it is well to give quinine. Salicylate of soda in such small doses as two grammes administered in the course of four hours caused so much delirium and collapse in women after child-birth as to deter Dr. Fritsch from repeating its use.

We have entered at some length into the details of the above method because it seems to us to mark a distinct advance in obstetric surgery, and to hold out a real hope of success by taking advantage of a rational indication for the prevention, and even the cure, of puerperal fever, where the use of other remedies has as yet been scarcely more than empirical and unscientific. If the great "peril of child-birth" can be lessened by means so simple, the introduction of antiseptic midwifery will be a boon indeed. The need is pressing, for every year many a young wife and mother is snatched away, the victim of puerperal infection.—(*Med. Times and Gaz.*, Apr. 7, 1877.)—*Monthly Abstract.*

Nitrate of Silver in Pruritus of the Vulva.—Dr. Charles *(Annales de Gynecologie)*, speaks most highly of the application of the solid nitrate of silver in the treatment of vulval pruritus. The seat of the itching is oftenest near the clitoris, or in the nymphæ, sometimes at the margin of the anus. It is necessary to cauterize freely, passing the crayon two or three times over the affected surfaces, and even somewhat beyond them. Dr. Charles states that he has found, without a single exception, great relief from the first cauterization, often a complete cure. Sometimes it is necessary to recur to the cauterization a second or third time after some days.

AN AMERICAN VIEW OF OVARIOTOMY AT THE SAMARITAN HOSPITAL, LONDON.

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"All coagula having been carefully removed from the peritoneal surface and pelvic cavity, the clamp was adjusted crosswise externally, and the wound was closed by seven stitches, the pedicle emerging between the last and the last but one. These sutures, like the ligature already described, were of Chinese silk, uncarbolized. They were passed through both the integument and the peritoneum, without, however, taking up the whole thickness of the abdominal wall, and during their tying the loose pouch of the abdomen was bunched up, as it were, by the hand of an assistant. The threads were provided with a needle at each extremity, the second of which was held by the operator's lips while the first was being passed, thus preventing twisting and other entanglement, and permitting greater speed.

"The wound having been closed, bits of lymph were carefully placed under the clamp and between the sutures; the extremity of the pedicle outside the clamp was touched with solid perchloride of iron; the abdomen was covered with cotton-wool, over which were strapped broad bands of adhesive plaster; a binder of flannel was placed outside this; and the entire operation was completed in just half an hour from its commencement.

"Nothing could have exceeded the adroitness and celerity, yet absolute thoroughness and perfect neatness, of the whole procedure. There were two female nurses and two assistant-surgeons, besides the gentleman in charge of the anæsthetic. They were all constantly occupied, and each, knowing exactly what to do, at what moment, and how, never came for a moment into the other's way; so that there were six busy pairs of hands, every one at its especial work. The operation, from beginning to end, was as if done by the most perfect yet sentient mechanism, and was an apt illustration of the consummate skill that only such unequalled practical experience as that of Mr. Wells could produce.

"As to Mr. Wells's percentage of recoveries —in nowise, I believe, depending upon chance —there is even more to be said. I may hereafter, in another communication, refer to the general subject, having, as is tolerably well known at home, decided views of my own as to the essential points in ovariotomy, so that I will just now confine myself to what was shown at the operation of to-day. There are many questions of interest, as, for instance, whether ovariotomy succeeds better with American or English patients, for the races differ greatly as regards nervous excitability, tolerance of shock, etc.,— but then it must be remembered that Mr. Wells's successive series now represent patients from almost every part of the globe; and as to whether operators are more fortunate in city or in country air. The great bulk of Mr. Wells's sections are made in the very heart of crowded London. What, then, are his secrets? To discover some of them we have but to glance again at what I have just written.

"1. He permits no inoculation with septicæmia by the visitors who are present, no matter if they be intimate friends. They cannot touch the patient's person, much less her mucous membrane by a vaginal examination; and by their written certificate they are put upon their honour that they have not within a week been even within a suspicious atmosphere.

"2. Similarly, precautions are taken against the chance induction of simple peritonitis. By permitting no examination, whether external or internal, by visitors, a deal of unnecessary stirring up of the patient's pelvic and abdominal viscera is avoided. At such times it is but a sorry compliment to a professional friend to ask him to verify the diagnosis, while the abstinence from such manipulation may to the patient make the difference between life and death.

"3. The patient, having been anæsthetised previous to their entrance, sees no stranger. Visitors would instinctively retire at the close of an operation, but they are too often ushered into the room prematurely, thus causing much unnecessary nervous excitement, which most certainly cannot increase the chance of recovery.

"4. Celerity in this operation, provided time enough be allowed for the completion of every requisite stage, and the closure of all points of hæmorrhage, means not *éclat* for the operator so much as safety for the patient, by preventing

undue exposure of her viscera and peritoneum to atmospheric irritation and chill. To insure this, skilled assistants are required, who are not only generally, but specially, versed in every possible detail of the operation.

"5. Every minute precaution, if wise, counts towards the result; so that to confine the patient's extremities beforehand leaves the assistants free for other duties, and preserves the operator from stoppage in his work; saves his mind from annoyance, and his thoughts from being turned from the point of the moment. In the same way, perfect neatness and cleanliness, everything being in its place, and that place a matter not of chance but of prevision, helps the result. Napkins soaked with ascitic and ovarian fluid, sticky sponges, puddles of coagula, and instruments coated with half-dried blood, may seem the necessary adjuncts of such an operation, but their absence goes far to keep the operator's hands facile, his mind cheerful, his speed great, and to cause his whole work to be better done.

"6. Other things being equal, the shorter the incision the better, for manifold reasons. To disintegrate the morbid mass from within its substance by the hand passed into the cavity of a cyst is far more judicious than to pull and to twist and otherwise forcibly undertake to deliver it, whether by hand, by forceps, or by both combined. The adjacent viscera are less disturbed in position and less liable to be bruised, the peritoneum receives infinitely greater protection, and there is less traction upon the pelvic ligaments.

"To the other steps of the operation I need not refer, covering as they do ground that is now more common to surgeons. I used myself to attach great importance to passing the sutures through the peritoneum, as Mr. Wells did in the case now reported, but I have had recoveries when, to decide this question, no suture whatever was used; either the external lips of the wound were simply brought together by adhesive straps, or its internal edges by deep outside pressure of a similar character. And so with regard to the treatment of the pedicle. In this instance it was brought outside, and a stiptic antiseptant applied. Recoveries have so constantly followed not merely this method, especially known as Mr. Wells's, but deep tying, whether with silk, catgut, or wire, deep acupressure, the actual cautery, and even other procedures, the comparative merits of which have not been decided, and of which one seems best on one occasion, and another on another, that I do not now discuss them. My aim has been to point out certain general principles, hardly as yet appreciated, which must underlie all constant success; and I am quite sure that in Boston, where the performance of this operation of ovariotomy, perhaps *the* great triumph of modern surgery, was, not many years ago, in Mr. Wells's presence, pronounced 'a mere matter of taste,' my remarks will be appreciated and their justness coincided in."—*Med. Times and Gazette.*

RELIEF OF PAIN IN UTERINE CANCER.

Dr. A. E. Aust-Lawrence, Physician to the Bristol General Hospital, writes to the *Medical Times and Gazette*, March 24th :—

I have, unfortunately, generally under my care in hospital and private practice, about from twenty to thirty cases of cancer of the uterus, vagina, or rectum; and the experience of the past twelve months has led me to rely, to a great extent, on the following treatment for the relief of pain :—In cases of medullary cancer of the uterus, and also of advanced epithelioma in the same region, I have been struck with the marked relief often derived from the administration of ergot, in doses of thirty minims every six hours. There is a relief from the intense throbbing which, as a rule, only subsides with each attack of hæmorrhage, which, of course, brings with it great exhaustion. I consider the ergot acts in the ordinary way, by lessening the amount of blood in the uterus; and it may also check, to a slight extent, the rapid breaking down of the affected part. A case of medullary cancer in a young woman thirty-one years of age, was rendered very much less painful by ergot than by any other remedy which was tried. I have a case now under my care of sarcoma of the uterus, the pain of which is very much relieved by full doses of ergot.

Another drug I have found of great value is croton-chloral hydrate. This, in my experience, has not very much power to lessen the pain at the seat of the cancer, but it is very valuable in lessening the reflected pains in the back, thighs, and groins; and this it has done in several of my cases to a very marked degree. As a local remedy I have found carbolic acid very valuable. I apply it, full strength, by means of a little piece of cotton-wool, through a very small speculum, to the cancerous surface, and then order a lotion with one drachm of the glycerini acidi carbolici to half a pint of water, to be used as an injection night and morning. I have found this drug, used in the way I mention, of great value.

Of course other drugs suggest themselves to every one, such as opium, Indian hemp, bromide of potassium, etc.; but what I wished to show is that ergot is a very valuable agent in helping to control pain in these cases; that locally I have had better results from carbolic acid than from anything else. I might also add that a very valuable way of relieving pain in these cases is by small blisters in the groins, dressed with an ointment containing morphia.

On a New Treatment in Post Partum Hæmorrhage.—Although not an obstetric practitioner, I have recently been consulted in two cases of severe *post-partum* hæmorrhage. In both cases every means had been adopted but unavailingly. It flashed across my mind in the first case to try the effect of the ether-spray, and accordingly I directed a large spray over the abdominal walls, along the spine and over the genitals; the uterus at once responded, and the cessation of the hæmorrhage was almost immediate. In the second case I lost no time in adopting a similar treatment, and with an equally successful result. I have consulted several eminent obstetric practitioners in Dublin, and am informed by them that they are not aware that this treatment has been heretofore proposed. The advantages of the ether-spray over the application of cold water, and the other means usually adopted in these cases, must be patent to every practitioner of midwifery.—By W. Handsel Griffiths, P.H.D., L.R.C.P.E.—(*Can. Med. and Surg. Journal.*)

Materia Medica.

ON THE INTERNAL USE OF GLYCERINE ASSOCIATED WITH CINCHONA AND WITH IRON SALTS.

M. A. Catillon (*Repert. de Pharm.*, June 10, 1876) says that glycerine perserves iodide of iron from the alteration it invaribly undergoes by exposure to the air, and M. Vezu takes advantage of this fact in proposing to substitute glycerine for water in the solution (1–2) used in pharmacies for the extemporaneous preparation of the syrup. Hitherto, says the author, no one has, to our knowledge, drawn attention to the remarkable property possessed by glycerine of preventing the action of cinchona bark on iron, and thus of removing the incompatibility of two important agents, which it is so often useful to prescribe together. This property is possessed by glycerine to such an extent that cinchona and the iodide of iron even (perhaps the most susceptible of the iron salts employed in medicine) may be associated without decomposition. It is well known that when iodide of iron is added to the syrup or wine of cinchona the liquid first becomes turbid, and speedily assumes an inky appearance, and there is deposited at the end of some days a blackish powder, which contains the iron as tannate. If the usual liquid be replaced by glycerine, the reaction is not observed, and the two (previously) incompatibles remain mixed without either the limpidity or colour of the cinchona preparation being affected. In addition to this, glycerine exerts on cinchona a solvent power comparable to that of alcohol, and which permits the retention of all its principles. Thus, it dissolves entirely the alcoholic extract, which contains them all, and the complex substance designated resin of cinchona, which contains a notable proportion of them. According to Soubeiran, this resin retains, in combination with the derivatives of cinchotannic acid, known collectively as insoluble cinchona red, a proportion of alkaloid equal in value to one-fourth its weight of sulphate of quinine. The vehicles employed in the ordinary preparations of cinchona precipitate all this active part of the drug.—*Chemist and Druggist.—The Dublin Journal of Medical Science.*

SULPHATE OF CINCHONIDIA IN MALARIA.

University Hospital, Baltimore.

During the past ten months sulphate of cinchonidia has been largely used in this hospital in the treatment of malaria. Careful observation of a large number of cases affected with tertian, quotidian, and quartan intermittent fever, shows as decided results from the use of this drug as can be obtained from quinine. The mode of administration has not differed from that of quinine, save the quantity and by hypodermic injection. We have usually given ten-grain doses just previous to the chill, or five-grain doses three times during the day. In case of failure in arresting the paroxysm after the first administration, the dose has been increased to twelve, and even fifteen grains in some instances, with satisfactory results.

In remittent fever our observation has not been so extensive as in the intermittent form. In the few patients suffering from remittent fever to whom it was administered the results were satisfactory.

As an antipyretic it has been employed with less freedom, and with less success.

It has not proved in our experience equal to quinine where the temperature ranges beyond 103°. In the afternoon rise of temperature in phthisis and in pneumonia, with a rise of 102° and 103° temperature, we have employed it with decided benefit. As a general tonic, in three-grain doses, it has acted well.

Its administration has been free from the unpleasant effects so common to quinine. It seldom produces nausea, and is borne well by the stomach after quinine has been refused. The cheapness of the drug, as compared with the cost of quinine, renders its employment freely admissible for dispensary and hospital use, and for impoverished sections of country saturated with malarial poison.—(*Hospital Gazette*).

American Medical Association.—The annual meeting of the American Medical Association will be held in Chicago on Tuesday, June 5th, at 11 o'clock, under the presidency of Dr. Henry I. Bowditch, of Boston.

MIXED CHINCHONA ALKALOID.

The efficiency of this preparation as a substitute for quinine continues to be discussed by the profession in India, and opinion appears to be much divided as to its value as a therapeutic agent. The Government of Bengal has directed its use instead of quinine in gaol and police hospitals, and in native hospitals and district dispensaries. Civil surgeons are also to be supplied with the drug for sale in their districts. The resolution prescribing its use states that these alkaloids appear to be, when judiciously administered, nearly as reliable as quinine, while their cost is only about a-fourth of that of the more expensive agent. On the other hand, in the Madras Presidency the results of a somewhat extended trial of the new preparation have not been satisfactory, and its general adoption is deprecated mainly on the score of its insolubility and its tendency to produce gastric disturbance and vomiting. After reading what has been said for and against the mixed chinchona alkaloid, we are disposed to think that it is deserving of a wider and more thorough trial than it has yet received. There is no reason why its capabilities should not be tested nearer home; the experience thus gained might perhaps be of service to Indian officials.—*London Lancet.*

Opiatine.—Under the name of opiatine, Messrs. Gale and Co., wholesale chemists, 15, Bouvere Street, Fleet Street, London, E.C., have introduced a preparation, containing a combination of morphia and codeia, freed from the odorous and inert principles—the resin, oil, and impurities of opium—and in which the active constituents are in an uniform, concentrated, and reliable condition. Such a preparation has for the practitioner an obvious advantage. Crude opium and its various extracts are often found to produce much disturbance of the general system. This preparation, on the other hand, does not, it is alleged, cause headache, giddiness, constipation, or other objectionable symptoms characteristic of the ordinary preparations of opium. Nevertheless, it possesses all the soporific, and anodyne properties of opium. Such a preparation has an obviously useful function, and is likely to be welcomed.—*Brit. Med. Journal.*

Translations.

From *Le Progrès Médical.*

On the Therapeutic Employment of Glycerine.

Glycerine is often employed for external use. The study of its officinal preparations and of its surgical applications has already been accomplished by Demarquay; less often has its internal administration been thought of, as well on account of the impurity of its commercial product, as on account of ignorance of its physiological properties.

Accordingly, we owe it to our readers to draw attention to the interesting researches of M. Chatiilon, whose results, already communicated to the *Academie des Sciences*, have just been published in the *Archives de Physiologie*, and have been made the subject of a report by M. C. Paul to the *Societe de Therapeutique*. In small doses, glycerine exerts a real effect upon nutrition, which it increases. This fact is demonstrated by increase of weight. It diminishes disassimilation by furnishing material for respiratory combustion, which, consequently, oxidizes less of the fat in the system. The azotized matters themselves are less rapidly consumed; this fact is established by a diminution in the quantity of urea secreted in the twenty-four hours. Glycerine is an excitant of the digestive functions; it is perfectly tolerated, very rapidly digested, and is so completely absorbed that, unless very large doses are employed, only a small quantity can be found in the blood and urine. Elimination by the kidneys commenced less than an hour after its ingestion and ceases about the fifth hour.

The blood of dogs subjected for a long time to this medication contains less sugar; but it is not on account of this property that glycerine might be advantageously employed in the treatment of diabetes, but rather on account of its preventing excess of organic combustion, and on account of its supplying material to be burnt instead of the tissues of the patient. By itself, glycerine is incapable of producing glycosuria or albuminuria; it possesses laxative properties.

In large doses, glycerine may produce symptoms similar to those of acute alcoholism, if it be introduced all at once into the stomach; but taken little by little, even in excess, it only produces a slight elevation of temperature. The rational dose of glycerine appears to be from 15 to 30 grammes a day; it has already been employed in foreign countries as a succedaneum of cod-liver oil.

From *Le Progres Medical.*

At a meeting of the "Societe de Chirurgie," in April, *apropos* of a communication by M. Denuce of two interesting observations of foreign bodies in the air passages, M. Verneuil expressed the hope that M. Denuce's two observations might in some way tend to bring into favour the operation of tracheotomy by the thermo-cautery. The operation is thus made not only much easier, but also much more benign, as well in infants as in adults. M. Tillaux, although altogether partial to tracheotomy by the thermo-cautery, is not so much of an optimist as M. Verneuil, so far as the benignity of the operation is concerned. Some weeks ago he practised tracheotomy on an adult with the thermo-cautery, and he had nevertheless to deal with a considerable hæmorrhage due to section of the thyroidean venous plexus, which had attained a considerable development, as it exceptionally does in some persons.

M. de Saint Germain preferred the bistoury for children, because he had seen a large and deep slough follow the use of the cautery in a child seven years of age.

M. Gillote had done two tracheotomies with the thermo-cautery; in one of the two the hæmostasis was perfect.

M. Paulet also declared himself favourable to this operation. He had experienced a short time since the gravity of hæmorrhages produced by section of the thyroidean plexus with the knife.

M. Despres pleaded the cause of the knife. He charged the thermo-cautery with—1st. Not allowing the operator to know exactly what he was doing; 2nd. Rendering the operation longer; 3rd. Producing sloughs which contain an extent of eight square centimetres. These eschars not only comprise the skin and the

muscles, but invade the trachea itself, and produce constriction of it. Tracheotomy with the knife is, on the contrary, the best regulated operation in surgery, seeing that one ought to determine, as Trousseau did, not to incise the trachea until the bottom of the wound is absolutely dry. Now this is always possible even in children.

M. Verneuil had done, or had allowed his students to do, nine operations; some with the galvano-cautery, some with the thermo-cautery. He had never seen sloughs produced, as mentioned by M. Depres. M. Krishaber had done five operations; M. Mauriac, one. Neither of them had seen any sloughs. As for the operation of M. Labric, it had been done with extreme slowness, as the operator feared hæmorrhages. It was the first time M. Labric had used the instrument. If the division of the tissues had been more rapid, there would have been less radiation, and sloughs would probably not have been produced. As far as the gelatinous œdema, of which M. de Saint Germain had spoken is concerned, everybody knows, and M. de Saint G. amongst the first, that this is often enough observed to follow tracheotomy with the knife.

M. Denuce recently performed tracheotomy with the thermo-cautery in a child seven years of age attacked with croup. There was indeed an eschar found, but of very small dimensions. In any case, this trifling accident ought not to be regarded as a sufficient reason for renouncing an operation which has given excellent results. —E. Brissand.

From *Le Progrès Médical.*

At a late meeting of the "Societe Medicale des Hopitaux," M. Brovardel presented a work intituled, "Urea and the Liver." These researches go to prove a fact of the utmost importance, which is, that the increase of urea in the urine bears relation not to elevation of temperature, but to the functional superactivity of the liver. When the hepatic circulation is exaggerated, the quantity of urea is augmented; when the liver tissue is destroyed, (cirrhosis, malignant icterus, etc.,) the urea disappears or is diminished.

From *Le Progrès Médical.*

At the "Societe de Biologie," M. Dumontpallier read an interesting report in the name of the Commission appointed, at Dr. Burq's request, to examine into the effects of the application of metals upon the cutaneous surface in cases of anæsthesia. The Commission was composed of Messrs. Charest, Luys, and Dumontpallier, to whom were added for special researches, Messrs. Landolt, Gelle, and Regnard. They had been able to convince themselves of the correctness of the facts advanced by Dr. Burq. If, in hysterical hemianæsthetics, there be applied upon the hemianæsthetic skins pieces of gold, copper, or zinc, the patient soon experiences prickings, a sensation of heat, and one can discover in this part, at the end of a few minutes, a return of sensibility, an elevation of temperature, and an augmentation of power. In the neighbourhood of the point of application of the metal phenomena of dysæsthesia are also noticed. Special sensibility is affected in the same way. In this way the members of the Commission have been able to observe the disappearance of Daltonism and the diminution of deafness. These remarkable phenomena are not produced in all patients by means of the same metal; in some it is gold alone which is active, in others there exists an idiosyncrasy for copper or for zinc. It is, moreover, probable that this action of the metal is due to the electric currents which it develops on the surface of the skin. Thus, in an idiosyncratic hemianæsthetic return of sensibility would be obtained by employing an electric current of the same force as that indicated by the galvanometer as having been produced after the application of the pieces of gold upon the skin. The same phenomena occur in hemianæsthesia of organic origin; but in these cases, a curious fact, the effects of the metallic application are much more lasting than in hysterical hemianæsthetics. In the course of their experiments, the members of the Commission have established a fact of great physiological importance. In proportion as, on the one side, the general or special sensibility returns, the temperature rises, the muscular force increases, there is observed at a corresponding point on the sound side diminution of sensibility, of temperature, and of muscular power. It seems that one side loses what the other gains; this is a true *transfer of sensibility.*

From the *Revista Medico Quirurgica.*

A New Modifying and Antiseptic Agent in the Treatment of Wounds.

Dr. Hermant has recently published, in the *Archives Medicales Belges*, a note upon the Employment of a Mixture of Chloride of Calcium and Camphorated Alcohol in the Treatment of Wounds.

M. Hermant uses a mixture of equal parts of liquid chloride of calcium and camphorated alcohol, which, after filtration, forms a clear and unchangeable solution. It is especially in wounds complicated by lacerations, contusions, gangrene, and loss of substance, and in fistulous abscesses, that the curative influence of this application of the chloro-alcoholic solution, and the results obtained, have been remarkable. The author also recommends the use of this solution in the treatment of sloughs, occurring in the course of severe typhoid fevers.

In this case, as in all others, the mixture acts, says Dr. Hermant, 1st. As an antiseptic and disinfectant to gangrenous wounds, and, consequently, is advantageously employed in gun-shot wounds.

2nd. As a detergent, possessing an eliminative action on mortifying tissues, which it causes to disappear by a kind of insensible absorption, and almost without suppuration.

3rd. As a cicatrizant, it exerts a constrictive (constringent) effect upon wounds, which promotes the approximation of their edges.

These results should be confirmed by experiment. In a case of cancerous ulceration we made use of this mixture as a disinfectant, and we are bound to say that it seemed to us to be very useful. It appeared to us, in this respect, (as a disinfectant) much superior to the various disinfectants having carbolic acid, (whose odour is to some very disagreeable,) for their active principle. The chloro-alcoholic solution is free from this inconvenience.—Extract from the *Presse Med. Belge.*

From the *Gazzetta Medica Italiana.*

Petroleum as a Topical Application.

Dr. Paolo Comegijs recommends the use of common petroleum as a topical application in cases of chronic ulcers, sacral sloughs, and affections of bones. According to the experience of the author, injections of petroleum into sinuses, and into purulent cavities, are attended with marked advantages. Where loss of substance has occurred, he applies strips of cotton soaked in petroleum, and then covers the whole with a piece of oiled silk. According to the author, the pain produced by this application disappears at the end of a few minutes.—From *Giom. della R. Accad. di Med. di Torino.*

From the *Revista Medico Quirurgica.*

Subcutaneous Injections of the Bromhydrate of Quinine.

Dr. Herbillon has studied the properties of this new combination of quinine, discovered by Latour in 1870, and first applied in therapeutics by Professor Gubler. This salt especially is employed in subcutaneous injections. Here is the formula of the solutions :—

Neutral bromhydrate of quinine..	1	gramme.
Distilled water	6	cent. cwt.
Alcohol	4	"

This solution is one in one-tenth; one gramme of the solution, that is to say, the mean capacity of a Pravaz syringe will contain ten centigrammes of the bromhydrate of quinine. Ten to twenty centigrammes of the active substance are injected daily. To the already published observations of Messrs. Soulez and Gubler, Dr. Herbillon adds other facts in the M. Gubler's wards in the hospital Beaujon; and signalizes the advantages to be obtained from the employment of this salt in the treatment of intermittent fevers. Dr. Raymond has also observed in M. Gubler's wards the good effects of this salt, and publishes five very conclusive observations demonstrating the security and rapidity of action of this substance. He insists, moreover, upon the innocuity of the hypodermic injections. In 300 injections practised in M. Gubler's wards, he has never observed a single accident. For his part, Dr. Soulez has shown the safety of these injections; out of 116 hypodermic injections made by him, he has not seen eschars produced by these injections more than ten times. Amongst these cases he has treated patients suffering from

severe affections (typhoid fever, consumption). Moreover, Dr. Soulez prescribes (directs) the employment of this method in patients profoundly cachectic. Dr. Choffe has obtained, in Algeria, from the bromhydrate of quinine, given internally, successful results in more than thirty cases of intermittent fever, by the daily administration of a single dose of ten centigrammes of the salt.—*Journal de Therap.*

From the *Revista Medico Quirurgica.*

Hydrotherapy in Syphilis.

The time has arrived for practitioners to recognize the utility of stimulating and promoting nutrition in the treatment of syphilis. It is a manifestation of this general tendency, the combination of hydrotherapy with mercurial medication, which constitutes the treatment recommended by a distinguished German syphilographer, Dr. Hofmeister, of Pest. From his experience he concludes :—

1. The employment of cold water in syphilis notably increases the general nutrition.

2. The increased energy of digestion facilitates the absorption of alimentary substances and medicines.

3. The preferable mode of administration of mercury is by inunction.

4. Cold water, by promoting absorption, necessitates a smaller quantity of mercury.

5. The augmented activity of the secretory organs prevents the accumulation of mercury in the system.

6. The duration of treatment is much shorter than under ordinary circumstances.

7. Segregation of the patients is not necessary, because the cold water represses their ardour.

And 8th. Salivation does not occur, and it is not necessary to suspend the treatment.—*Revista de Medicina le Cerujia Practicas.*

Three Cases of Sub-Coracoid Luxation of the Humerus Reduced by the Method of Professor Kocher, of Berne.

The following is the description of the method given by the author : " Mrs. J. having seated herself in front of me, the dislocated arm being semi flexed, I seized with my left hand the wrist, and with my right, the elbow of the dislocated arm ; then I rotated the limb outwards until I felt decided resistance ; next, without removing my hands, I pressed with the right hand on the elbow from below upwards ; then rotating inwards, I brought the limb towards the chest and the hand of the luxated arm to the opposite shoulder. During this last movement I heard the head of the humerus slip into its place." This method of reduction has great advantages, as it can be used without the aid of chloroform.—(*Revue de Therapeutique Medico-Chirurgicale.*)—*L'Union Medicale du Canada.*

From *Le Progres Medical.*

At a meeting of the Surgical Society of Paris, on April 25th, M. Verneuil described a new method, invented by M. Miniere, a medical student, for the purpose of preventing nocturnal erections and the spermatorrhœa which result therefrom. This apparatus, which has been called the electro-medical alarm, is composed of an electric clockwork, in which two conducting wires end. These wires start from a light ring, divided into two parts by a slight moveable septum. The penis is placed beneath this septum, and, if an erection commences, the septum is raised, and completes the circuit. The alarm bell, thus started, awakes the patient in time for him to avoid the erection. A patient, troubled with erections for fourteen years, has been completely cured by this instrument.

From *Union Médicale et Scientifique du Nord-Est.*

M. Jolicœur, at a meeting of the Medical Society of Rheims, described the following method of preparing specimens of tænia for examination : " The segments of the worm are, as soon as possible after their expulsion, put into a mixture of vinegar, water and alcohol for a fortnight. They thus become so transparent that by placing them on a glass slide, and holding them up to the light, their structure, and especially the disposition of their organs of generation, can be clearly seen.

THE CANADIAN
Journal of Medical Science,
A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor.*

TORONTO, JUNE, 1877.

☞ SUBSCRIBERS' DUES.—Will those who are indebted to us for the past and current year kindly forward their subscriptions. Many are yet in arrears.

UNIVERSITY SENATE.

The election of members for the Senate of the University of Toronto resulted in the return of the three retiring members: Dr. Oldright, Judge Boyd, and Mr. W. Mulock, by the following vote:—Dr. Oldright, 431; Judge Boyd, 413; Mr. Mulock, 405; and Dr. Fulton, 157; Mr. A. McMurchy being chosen by a large majority as the representative of the High School masters. The above vote indicates clearly the feeling of the graduates in regard to the late agitation, and constitutes a pleasing endorsement of the acts of those gentlemen who have been so severely censured.

If there had been the least grounds for supposing the Senate had been recreant to its trust, or had shown the slightest disposition to prostitute the University to the accomplishment of narrow, selfish ends, the varied, energetic, persistent, and *very peculiar* efforts made to arouse a feeling of jealousy in the minds of the graduates towards their representatives should at least have reduced their majorities below those of their previous election; whereas, instead of doing this, the agitation brought out the whole strength of the constituency, and the retiring members were elected by larger majorities and numbers, we are told, than had ever been cast at any previous election, thus giving them a most triumphant vindication of their course and conduct.

Some of our friends wonder why we have not taken a more active part in the contest, or expressed our views and preferences in regard to the candidates. Knowing that the electors were not like those of a municipal or parliamentary constituency, but intelligent, educated, thinking men, capable of forming their own judgments, we felt that the issue could be safely left in their hands without dictation or importunity on our part; and as the canvas was being conducted we knew that if we took any part in the contest it would result in a controversy more or less personal and embittering, in no way conducive to the elevation of the profession, or the advancement of brotherly love.

THE REGISTRAR'S OFFICE.

We are told that the office of the Registrar of the College of Physicians and Surgeons has been moved from the Methanics' Institute building, Church Street, up to the Old Asylum building in the Queen's Park, more than a mile farther from all business centres in the city than it was before. Certainly if it was difficult for persons to have their business with the Registrar attended to before, it will not be easier now.

UNIVERSITY CONVOCATION.—The day for the Convocation of the Graduates of the University of Toronto is close at hand. We hope that the attendance will be large. There are a great many points which might profitably be discussed, and we are sure that the representatives elected to the Senate would be glad to hear the opinions of their constituents. We have before urged the importance of reform in the Medical curriculum, and we know that all who have taken any interest in the matter are of one mind as to the necessity of establishing compulsory annual examinations in the Faculty of Medicine. There has already been submitted to the Senate, by a committee thereof, a strong and unanimous recommendation on this point, but there the matter has been allowed to rest. We think, too, that all will agree with us that the standard in many of the important branches of medicine is far too low.

THE DISCOVERER OF ANÆSTHESIA.—In the *Virginia Medical Monthly* for May, Dr. Marion Sims has an article on this subject, and, after careful investigation, decides that to Dr. Crawford W. Long, of Athens, Georgia, is due the honour of first discovering and practising anæsthesia. Dr. Long used ether on the 30th of March, 1842, and, by its aid, painlessly removed a tumor from the neck of a patient. This was two years before Morton used nitrous oxide, and four years before Wells used ether. Dr. Long is still living, and his claims are fortified by the evidence of other physicians who were present at the operation, and by the written statement of the patient operated upon. Dr. Sims urges the American Medical Association and the profession everywhere throughout the States, to petition Congress to make a grant of one hundred thousand dollars each to the families of Morton, Wells, Jackson, and Long, as a small recognition of the boon conferred upon mankind by them.

ANIMAL VACCINE VIRUS.—We have received some animal vaccine points from Dr. E. L. Griffin, of Fond-du-Lac, Wisconsin, and have given them a thorough trial. We can highly recommend them, as in no instance in our experience have they failed, and in no case has any ill effect resulted from their use. Dr. Griffin's advertisement will be found in another column.

HONOURS TO A CANADIAN.—We are pleased to hear that Dr. A. R. Robinson, graduate of Toronto University, has been awarded a prize of $100 by the Bellevue Hospital Medical College Alumni Association for the best essay on medicine. This prize is open for competition to all graduates of the College. Dr. Robinson graduated in 1869, and has for some time been practising in New York.

JOURNALISTIC.—The *Maryland Medical Journal*, edited by Drs. Manning and Ashby, of Baltimore, and the *Hospital Gazette*, edited by Frederick A. Lyons, M.A., M.D., New York, are two new medical monthlies aspiring for favour.

UNIVERSITY OF TORONTO, ELECTION TO THE SENATE.—The three retiring members for this year, Wm. Oldright, M.A., M.D., John Boyd, M.A., B.C.L., and William Mulock, M.A., have been re-elected by the large majorities of 284, 256, and 258 votes respectively. A. McMurchy, M.A., has been re-elected by the High School teachers.

BOOKS AND PAMPHLETS.

Proposed Bill to Amend the Present Anatomy Act. This Bill is to be submitted to the Ontario Medical Council at its next meeting in June.

An Act to Amend and Consolidate the Acts Relating to the Profession of Medicine and Surgery in the Province of Quebec.

On the Nomenclature and Classification of Diseases of the Skin. By L. DUNCAN BULKLEY, A.M., M.D. New York: G. P. Putnam's Sons.

Two Cases of Morphœa, with Remarks on the Disease and its Differential Diagnosis. By L. DUNCAN BULKLEY, A.M., M.D. New York: G. P. Putnam's Sons.

A public reception was tendered to Dr. Oronhyatekha and the distinguished temperance representatives who accompanied him from England, in the Morrell Temple lodge room, London, Ont. Addresses were delivered by the doctor, Mr. R. McDougall, Town Councillor of Liverpool and President of the United Temperance Association; Rev. R. Patterson, G.W.C.T., of Belfast; and Mr. W. Jones, G.W.C.T., of Birmingham.

The annual meeting of the College of Physicians and Surgeons of Lower Canada took place on Wednesday, in the Natural History Society's rooms, Montreal. The attendance was very large, and many of the members of the profession outside of the College were present. The meeting was chiefly devoted to a discussion on the present Medical Act.

Miscellaneous.

American Gynæcological Society. — The second annual meeting of this society will be held in Boston on May 30. The annual address will be read by the President, Dr. Fordyce Barker, of New York.

At a meeting of the Surgical Society of Ireland, held last week, Mr. Rawdon Macnamara exhibited a specimen of calculus which he had removed from a child aged four years, and which weighed a-quarter of an ounce—a most unusual size in a patient at so early an age.

University of Toronto Degree of M.D.— The following gentlemen, Bachelors of Medicine of the University of Toronto, have qualified themselves for the degree of M.D. :—T. S. Covernton, of Hamilton Asylum ; James White, M.A., Hamilton Hospital ; W. J. Wilson, Paisley ; and R. Zimmerman, Toronto.

Canadians in England.—F. R. Eccles, M.D., of Warwick, Ontario ; Richard L. Macdonnell, M.D., of Montreal ; Alex. Munro, M.D., of Montreal ; John H. Henchey, M.D., of Quebec ; and Adam H. Wright, B.A. M.B., of Toronto, have been admitted members of the Royal College of Surgeons, London.

The Annual Meeting of " The Association of American Medical Editors" will be held at the Palmer House, Chicago, on Monday evening, June 4th, 1877, at 7.30 o'clock.

All Medical Editors are eligible for membership, and are cordially requested to be present and participate in the meeting.

F. H. Davis, *Secretary.*

Resignations in the Philadelphia Medical Schools.—Dr. Francis G. Smith has resigned the professorship of the Institutes of Medicine in the University of Pennsylvania, and Dr. B. Howard Rand that of chemistry in the Jefferson Medical College. We understand that the vacancies thus created will not be filled immediately, so thattime may be afforded to gentlemen who desire to become candidates to make known their qualifications.

The law officers of the Crown—so it is said —have given it as their opinion that although women can be admitted to the degrees in medicine at the University of London, they cannot become members of Convocation. The latter is legally a part of the governing body of the University, and the Enabling Act of last year, under which women can be admitted to degrees in medicine, does not permit them to become members of the governing body of a medical corporation.

The *Thunder Bay Sentinel*, April 26th, says, —" Over a year since we published a series of articles, and also communications from Drs. Jno. Clarke and Cooke, urging the establishment of an hospital here, especially in view of the Public Works going on. Nothing was done, and now the want is surely felt. Men are frequently brought down the line and made a heavy charge upon citizens often poorly able to suffer the expense. This is not right, and a common humanity urges that immediate steps for relief be taken."

Method of Estimating Urea.—At a meeting of the Medical Society of the College of Physicians, Ireland, held last week, Professor Emerson Reynolds demonstrated a ready method of clinically estimating the quantity of urea in urine. In the apparatus, which is very simple, to a given quantity of urine mixed with water, the hypobromide of soda is added, and the water displaced by the volume of nitrogen given off indicates the amount of urea present in the specimen examined ; every six and a-half drachms of water discharged being equivalent to one grain of urea.

Royal College of Physicians, London.— "Any candidate for the College license who shall have obtained a degree in medicine or surgery at either a British, colonial, or foreign university recognized by the College, after a course of study and an examination satisfactory to the College, shall be exempt from re-examination on such subjects as the Censors' Board shall in each case consider unnecessary." The by-law was not accepted, we believe, without opposition, on various grounds ; and it is not improbable

that that opposition will be renewed when the by-law comes before the College for the second time. [The by-law has been read a second time and passed.]

At the "Societie de Biologie," on 7th of April, M. Redon gave the society an analysis of his thesis upon saccharine diabetes in the infant. More frequent than is generally believed, the affection presents at this age some interesting peculiarities. Amongst the number of symptoms almost constantly found are polyphagia, polyuria, and dryness of the skin. The prognosis is very grave (twenty-two deaths out of thirty-two cases). The fatal termination is less often due to phthisis than to marasmic phenomena. It is, moreover, more important to remember the possibility of diabetes in the infant, since the rational treatment appears to have a very great influence upon the course of the disease.

Nocturnal Cramp.—A Member writes:—I am very glad to find that J. E. C., M.D., has found some benefit from Howard's bicarbonate of soda. He has lain many nights studying cramp in his own person. It proceeds, he says, from excessive acidity, not only of the stomach but of the whole bowel track; and when it seems to have reached its height, the extensor tendons have nearly dislocated the great toe. Then it is that relief is at once obtained by taking half a drachm to two drachms of the soda. Before he found this remedy useful, many things had been tried. In less than thirty seconds the cramp disappears, leaving a soreness that soon passes away. It has been prescribed by him in numerous cases, and the result has been always satisfactory.—*Brit. Med. Journal.*

Origin of Uric Acid and Urea.—Dr. W. von Knieriem (*Zeitschrift für Biologie*, Band xiii., Heft 1, 1877), from the results he has obtained in a long series of experiments upon the relations of the antecedents of urea in mammals to the organism of birds, draws the following conclusions:—1. During the digestion of protein compounds in the organism of the fowl the same bodies are formed as in the digestion of the proteids in mammals—namely, asparaginic acid, leucin, glycocoll; and these substances constitute the antecedent stages of the formation of uric acid. 2. The antecedent stages of uric acid of the products of decomposition of the protein compounds in mammals, are, with the exception of the salts of ammonia, the same as those which precede the formation of urea. 3. Ammonia salts, which are converted in the bodies of mammals into urea, are eliminated from the bodies of fowls in an unaltered condition, and this explains the much larger excretion of ammonia that takes place in birds as compared with mammals.

University of Toronto Medical Examinations.—At the recent examinations of the Toronto University in the Department of Medicine, thirty-three candidates went up for M.B., and twenty-nine passed, viz.:—J. P. Armour, R. H. Barkwell, C. E. Carthew, A. Davidson, J. J. Esmond, B. Field, D. M. Fisher, J. W. Good, G. Gordon, W. J. Gracey, A. Grant, G. A. Langstaff, M. Macklin, W. A. Munro, G. T. McKeough, A. H. McKinnon, R. B. Orr, W. T. Parke, N. D. Richards, J. A. Sinclair, J. B. Smith, D. A. Stewart, W. T. Stuart, M. Sutton, W. Tisdale, F. B. Wilkinson, T. H. Wilson, W. E. Winskell, and O. Young. The following were the successful medalists:—University gold medal, W. T. Stuart; University silver medal, (1) R. B. Orr; (2) N. D. Richards; Starr gold medal, W. T. Stuart. For the Primary examination twenty-nine went up, of whom twenty-eight passed, viz.:—J. Algie, A. Baines, W. H. Bentley, S. A. Cornell, W. Cornell, W. H. Doupe, H. A. De Lorn, A. G. Geikie, S. H. Glasgow, J. Groves, J. R. Jones, W. Lehman, R. P. Mills, D. McCarthy, T. J. McCort, J. McGraw, J. J. McIlhargey, W. McKay, R. A. Pyne, J. P. Rankin, G. Riddell, A. Robinson, J. W. Ross, U. M. Stanley, M. Stalker, J. F. Vanderburgh, A. Wilson, and D. H. Wilson. The 3rd year scholarship was won by H. S. Griffin; the 2nd year's by J. Adair, and the 1st year's by W. Cross.

A meeting of the St. Clair Medical Association was held in the Crawford House, Windsor, on Wednesday, May 9th. The following members were present :—Dr. McLean, Sarnia, President ; Drs. Casgrain, Fleming, Pousette, and Thompson, Vice-Presidents; Dr. Tye, Treasurer ; Dr. Holmes, Chatham, Secretary. The other medical gentlemen present were :—Dr. Bucke, Superintendent of the Lunatic Asylum, London ; Dr. Fraser, of Sarnia ; Dr. Martin, Sandwich ; Dr. Gaboury, Windsor ; Dr. Lambert, Windsor ; Dr. Bray, Chatham ; Dr. Abbott, Dr. Brett, Dr. Gaboury, Belle River ; Dr. McKeough, Dr. Siverwright, Dr. Van Allen, Chatham ; and Dr. Carney, of Windsor. Drs. Lister and Shirley, of Detroit, were also present. Dr. Lambert read a paper on "Thoracentesis ;" and Dr. Fraser, of Sarnia, a paper on the "Therapeutic Value of Alcohol." Quite an interesting discussion took place on these papers. The President returned thanks to the medical gentlemen of Windsor for the kindness extended to the Association, which was acknowledged by Dr. Casgrain, Vice-President. The Association then adjourned, to meet in Sarnia the first week in August.

Death while Under the Effects of Nitrous Oxide.—It is with great regret that we have to announce the death of Mr. Geo. Morley Harrison, which took place at Manchester on the 27th ultimo, while under the influence of nitrous oxide gas. It appears that Mr. Harrison was suffering from toothache, and late in the evening he went to Mr. E. H. Williams, a dentist, who lived next door, to have some teeth extracted. Mr. Harrison asked to have some nitrous oxide administered, and the first administration not proving sufficient, he asked Mr. Williams to allow him to inhale the gas till he snored. Immediately after the extraction of the teeth symptoms of syncope ensued, and death was the result. An inquest was held, and the jury returned the following verdict : "Died from syncope during the administration of nitrous oxide gas for the extraction of teeth whilst labouring under fatty degeneration of the heart." —*London Lancet.*

New Test for Blood.—At a late meeting of the Academie des Sciences at Paris (March 5th, 1877), M. L. Cazeneuve brought forward a new test for blood, which may, perhaps, be of importance in medico-legal investigations, and which consists in observing the action of hydrosulphite of soda on the hæmatosine of the blood. He makes with boiling distilled water and a little ammonia an alkaline solution of ammonia. This solution is placed in a vessel adapted for spectroscopic examination. The characteristic band of alkaline solutions of hæmatosine is then seen to be present. If now a drop or two of the solution of the hydrosulphite is added to this liquid the dichroic tint of the alkaline solution instantaneously disappears, and is replaced by a crimson (rougevermeil) tint, which closely resembles the colour of a solution of oxyhæmoglobin.

Expulsion of Three Ascarides Lumbricoides by the Meatus Urinarius (*La France Médicale*, 1876, p. 107 ; from *Nuova Liguria Medica*).—A patient who had shown previous symptoms of worms was seized with severe pains in the anoperineal region, with throbbing and weight, followed by the appearance of piles, to which he was subject. At the same time he experienced a sensation of titillation at the neck of the bladder, which soon changed to a burning feeling and extended along the urethra to the meatus. Debility, dejection, occasional headache, and disturbance of the intellectual faculties, particularly of the memory, were present. Tem. 102°, respiration 38, pulse 100. Rectal and vesical tenesmus. One day, when the patient was more inconvenienced than usual by these symptoms, he passed a lumbricoid ascaris eight centimetres (two and a-half inches) in length by the urethra. Subsequently two other worms were voided, one of which was twelve centimeters (nearly four inches) in length. The treatment was tonic, with alkalies for the intestinal catarrh and urethral injections with decoction of male fern. It is supposed that these worms penetrated the bladder after leaving the small intestine, which had descended into the pelvic cavity and was interposed between the rectum and the bas-fond of the bladder.—*Phil. Med. Times.*

Cyanide of Zinc in Rheumatismal Neuralgia.—Dr. Luton, of Rheims (*Bull. Gen. de Therap.*, 1877, p. 97) again calls attention to the value of the cyanides in the treatment of rheumatism. He gives notes of two cases, one of sciatica followed by trifacial neuralgia and delirium, where the remedy was administered according to the following formula:

℞ Zinci cyanid., gr. iii;
Aq. destillatæ, fʒviss;
Mucilag. acaciæ ad fʒiv.—M.

Sig.—Tablespoonful every hour. *Shake well before using.*

The effect produced was surprising. The patient suffered less the first day after commencing treatment, the accompanying fever abated, the pain became tolerable, sleep and appetite returned. Within three days the disease was cured, and did not return. A second case of trifacial neuralgia, accompanied by acute articular rheumatism, fever, cerebral trouble, was cured rapidly by the same means. Dr. Luton gives notes of both of these cases. In the remarks which follow, he takes occasion to complain of the unmerited neglect with which this remedy has been treated by the profession, and complains almost bitterly of the popularity of propylamine and salicylic acid. Against the latter, indeed, Dr. Luton inveighs as a simple disinfectant elevated all at once by blind empiricism to the dignity of an anti-rheumatic remedy. He also considers the cyanide of zinc to have been employed heretofore in too small doses. If three, four, or four and a-half grains are necessary to master the disease, let them be given, but in broken doses, so that elimination may proceed *pari passu* with absorption. The cyanides are transient in their effects: they only pass through the organism, like chloroform, chloral, ether, etc. Hence there is no cumulative effect to be dreaded. Reduced rapidly to the condition of hydrocyanic acid, they are exhaled by the respiratory passages. Dr. Luton does not consider three-quarters of a grain of cyanide of potassium or zinc every hour excessive, and asserts that no risk is run in the administration of this dose. He prescribes it either in pill form or in the mixture above given.—*Phil. Med. Times.*

Hasket Derby, M.D., who recently examined the eyes of 122 members of the Freshman class of Harvard College, has presented the results in a compact report to President Eliot. The percentage of near-sight corresponds with that obtained by Dr. Cornelius A. Agnew in the collegiate department of the Brooklyn Polytechnic and the introductory department of the New York College, and also with that obtained at Amherst College by Dr. Derby himself. This percentage is 29·5. The examinations are to be repeated from year to year until the class is graduated, and the figures will illustrate the development of myopia during a college course. The examinations conducted in the schools of Breslau, Vienna, Lucerne, and St. Petersburg, as well as the partial tests made in Cincinnati, Brooklyn, and New York, indicate that myopia is not congenital, but increases steadily under the pressure of study. These conclusions are the same which Dr. Howe has reached after examining the eyes of 1,000 school children in Buffalo. He did not find a single child under six years that was near-sighted, which proves that the disease itself is not inherited, although the tendency may be; but between the ages of six and eighteen the percentage rapidly increased, his conclusion being that one pupil out of every four who is graduated at a high school is made near-sighted for life.

APPOINTMENTS.

Francis Lucas Nesbitt, Esq., M.D., of the village of Aurora, to be an Associate Coroner in and for the County of York.

The appointment of Francis Lucas Nesbitt, M.D., formerly of Angus, as an Associate Coroner in and for the County of Simcoe has been cancelled.

Elias Vernon, of the city of Hamilton, Esq., M.D., to be an Associate Coroner in and for the County of Wentworth.

Canadians in England.—Alexander Munro, M.D., Montreal, has been admitted Licentiate of the Royal College of Physicians, London.

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TORONTO. JULY, 1877.

Selections: Medicine.

PLAIN DIRECTIONS FOR PREVENTING THE SPREAD OF INFECTIOUS DISEASES.

BY J. M. MACLAGAN, M.D.

GENERAL DIRECTIONS.—I. When a case of infectious disease occurs in a house, immediate notice thereof should be given to the Medical Officer of Health or to the Inspector of Nuisances, and medical advice at once procured.

The following precautions should be taken:

1. Isolate the person affected as much as possible from the other inmates of the house.

This is most readily effected by at once removing him to an upper room, if circumstances permit. The room selected should be large and airy, and the means of ventilating it, which shall be presently mentioned, at once adopted.

2. Before removing the patient, the following preparations ought to be made in the room:

All superfluous curtains, carpets, woollen articles, unnecessary clothing—in short, everything likely to retain infection should be at once removed.

3. The patient's bed ought to be so placed as to allow of a free current of air around it, but not so as to place it in a draught.

4. The room must be kept well ventilated, under the physician's direction, by means either of a fire (when required) or of an open fireplace and chimney, and of windows opening to the external air. By means of the latter, ventilation is most effectually procured, so as to avoid draughts, in the following manner:

Raise the lower sash of the window three or four inches, then procure a piece of wood made to fit accurately into the lower opening, and place it there. By these means free outward and inward currents of air—without causing any draughts—are obtained through the vacant space between the two sashes. When a window is merely opened from the upper or lower sash, draughts are invariably caused.

5. Placing a small sheet of oil-cloth, mackintosh, or other waterproof material, beneath the upper blanket on which the patient is to rest, effectually prevents the bed from being soiled by any discharges, etc.

II. After removal of the patient to the room in which he is to remain, the outside of the door and door-posts should be completely covered by a sheet kept constantly wetted with some disinfecting fluid, such as Burnett's solution, Condy's fluid, carbolic acid, etc.

2. The room must be kept scrupulously clean. Before being swept, which should be done daily, if possible, the floor should be sprinkled with Calvert's or Macdougall's disinfecting powders, or with a weak solution of one of the disinfecting fluids already mentioned.

3. Vessels containing disinfecting fluids should be placed in the room for the reception of all bed and body linen, towels, handkerchiefs, etc., immediately on being removed from the patient, and on no account should they be washed along with other household articles.

4. Disinfectants should also be placed in all the chamber utensils used by the patient, and after use, more disinfecting fluid should be added, and the whole contents, if possible, should be immediately buried. No chamber vessel should be allowed to remain in the room after having been used.

5. All plates, cups, glasses, etc., which have

been used by the patient, should be rinsed in some disinfectant before being washed; and on no account should any vessels used in the sick room be washed along with other things, unless previously thoroughly disinfected.

6. Attendants on the sick should not wear woollen dresses, but only those made of washing materials.

7. Basins containing water, to which some disinfectant has been added, should always be at hand for the benefit of the attendants on the sick, who should not be sparing of their use.

8. No article of food or drink from the sick room should be consumed by other persons.

9. Visitors to the sick room, except in the case of clergymen and medical men, should be peremptorily forbidden; and they, when necessarily present, should, on leaving, wash their hands in water to which a disinfectant has been added, and should have as little immediate communication with others as possible.

III. When a death from infectious disease occurs, the body should be at once placed in a coffin, and sprinkled with some disinfecting fluid or powder such as chloride of lime, etc., and buried with the least possible delay.

2. On no account whatever should it be allowed to remain in a room occupied by living persons.

IV. On the termination of a case of infectious disease, either when the patient is pronounced free from infection, or, in the event of death, after removal of the body, the sick room and its contents should be thoroughly cleansed and disinfected.

2. The bed and bed-clothes, and all wearing apparel used by the attendants or patient, should be thoroughly disinfected.

V. In houses where a case of infectious disease occurs, no washing, tailoring, dressmaking, or any similar occupation, ought to be carried on.

2. No milk or food of any kind should be supplied from infected houses.

3. Children from infected houses should not be allowed to attend schools, and all persons from infected houses should have as little communication as possible with others either in private houses or in public places, such as railways, omnibuses, public-houses, churches, etc.

4. Any accumulation of filth or refuse of any kind should be at once removed from or about the premises, and disinfectants freely used. If this cannot be done by the persons themselves, immediate notice should be given to the Inspector of Nuisances.

5. The existence of nuisances of any kind, and wheresover situated, should be at once reported to the Inspector of Nuisances.

VI. During the prevalence of epidemic, infectious or contagious diseases, it becomes specially important that the general laws regarding the preservation of health should be rigidly attended to.

2. Implicit trust should not be placed in so-called "disinfectants." They are very useful when judiciously employed, but are by no means certain "preventives of disease."

3. Pure air, pure water, warm clothing, and good food should always be obtained if possible. By their constant use less chance is afforded for an invasion of disease.

4. Temperance both in eating and drinking is essential for the maintenance of health and the prevention of disease.

5. Over-crowding in houses, workshops, or schools should be strictly prohibited.

6. All houses, cottages, schools and public rooms should be kept clean and well ventilated; and frequent use of lime-washing on the walls and ceilings should be made.

Special Directions.—I. Scarlatina and scarlet fever are one and the same disease. It is very infectious. A very mild case may give rise by infection to a very severe one. Infection is contained in all discharges from the body during the progress of the disease and recovery; but more especially from the skin during convalescence, and when the cuticle is being shed. The dry particles which are separated from the skin are highly infectious, and retain their infectious nature for an unknown time, unless thoroughly disinfected. They are disseminated through the air, and become attached to articles of furniture, clothing, draperies, and wall papers, etc. Thus the disease may readily be conveyed from one person to another by those who are not themselves suffering from it. It is also conveyed, as has been mentioned, by bedding, clothing, furni-

ture and other articles, and by rooms which, having been exposed to infection, have not had their floors, ceilings, or walls disinfected, or had the wall papers removed.

No child should be permitted to go to school from an infected house, and communication of such in play or otherwise with healthy children should be prevented.

When a person has had the disease, he should not be permitted to mix with others until he has perfectly recovered and has had his clothes thoroughly disinfected; and not even then without the permission of his medical attendant. Nor is it advisable that any one who has had the slightest communication with a person suffering from the disease should go to any church, meeting, public-house, fair, or market, etc. Neglect of these precautions is a prolific cause of the spread of this disease.

Attendants on persons suffering from scarlatina should be chosen, if possible, from those who have already had the disease.

"It is believed that the dispersion of contagious dust from the patient's skin is impeded by keeping his entire body (including limbs, head and face), constantly anointed with oil or other grease; and some practitioners also believe this treatment to be of advantage to the patient himself. When the patient's convalescence is complete, the final disinfection of his surface should be effected by warm baths, with abundant soap, taken on three or four successive days (under the direction of the medical attendant), till no trace of roughness of the skin remains. After this process, and with clean clothes, he may be deemed again safe for association; but previously to this, however slight may have been his attack, he ought always be regarded as dangerous to persons susceptible of scarlatina."—Mr. Simon, Medical Officer to Privy Council.

II. Small-pox.—Infection from this disease is contained in all matters passing from the patient—in the breath and from the skin, in the matter contained in the "pocks," and in the dried scabs of the latter.

Vaccination, carefully and efficiently performed, is the only means of preventing or modifying this disease, and by it an almost certain immunity from death by this disease is conferred. No doubt cases do occur after vaccination, but they are milder in character than those occurring in the unvaccinated. After several years' interval re-vaccination ought to be had recourse to; and whenever the disease is present as an "epidemic," every person should be vaccinated, whether he has been so previously or not; and at such times all unvaccinated children, whatever may be their age, if in a fit state, should be vaccinated without any delay.

There is nothing which has been more certainly proved than the fact that vaccination saves annually thousands of lives, and therefore no attention ought to be given to those ignorant and foolish persons who are constantly circulating absurd ideas regarding it.

Persons attending on patients suffering from small-pox, should themselves have had the disease, or should recently have been re-vaccinated.

III. Enteric (*Typhoid or Gastric*) Fever.—The mode in which infection is chiefly spread in this disease is by the poison contained in discharges from the patient's bowels, and lasts certainly as long as these discharges continue to be unnatural. It is believed, however, by some, that this disease is infectious in other ways. These discharges infect the surrounding air, the bed and body linen, and also all places used for their reception. Thus, if placed in a water-closet, cesspool, drain, privy, or ashpit, the sewers of a town or village, and through them the drains of houses may, under certain circumstances, be the means of disseminating the disease. When drains into which these discharges have been thrown pass near to wells, the water contained in the latter has frequently been found to be perfectly unfit, indeed, dangerous to use. By faulty construction of such drains, soakage is frequently caused either into wells or into the surrounding ground, rendering them directly the means of spreading the disease. Cisterns may become contaminated by having their overflow pipes terminating in drains; and even water supplied by a water company may become infected by gas being drawn into defective pipes during an intermittent supply.

Milk has frequently been found to be a fruitful medium for conveying the disease, either

from having been placed in infected air, from which it has absorbed the poison, or from milk-pails having been washed, or the milk adulterated, with water containing the infection.

Great care should therefore be taken as to the source of the household milk supply.

The most certain and most deadly manner in which the poison of enteric fever is conveyed is by contaminated drinking water. The most certain way of preventing this contamination of water is by immediately destroying the poison contained in the discharges as soon as they are passed by the patient.

Disinfectants should be placed in the chamber utensil before use; and immediately after being used more disinfectant should be added. Above all things, the use of disinfectants should be frequent and copious.

The patient ought also to expectorate into a vessel containing some disinfectant.

All sheets, towels, handkerchiefs, etc., which have been used by the patient should be thoroughly disinfected, and afterwards carefully washed.

In all cases of infectious disease, it may be as well that the patient use rags or pieces of old linen, etc. (in lieu of pocket-handkerchiefs), which may afterwards be burned.

When the bed or body linen is soiled, the soiled spots should be sprinkled with some disinfectant powder.

A small sheet of gutta-percha, mackintosh cloth or other waterproof sheeting, placed below the upper blanket under the patient's body, effectually protects the bed from discharges, and is especially useful in this disease.

After the performance of any duty about a patient, the attendants should wash their hands freely in disinfected water.

The discharges should never (if it can possibly be avoided) be placed in a privy or water closet, but should, after complete disinfection, be buried deeply in the ground, at a distance from any drain, well, or watercourse. On no account should they be thrown on to any ashpit or dunghill, nor into any cesspool.

IV. Other Infectious Diseases.—It is quite unnecessary to prescribe special rules for the prevention of the spread of typhus fever, measles, diphtheria, whooping cough, etc. The general directions given are sufficient guides as to what is necessary in cases of those diseases. Many recommendations might be made regarding them, but these belong more to the duties of the medical attendant than to the Medical Officer of Health, and therefore are omitted here.

Directions for Disinfecting Rooms.—Rooms which have been occupied by a person suffering from infectious disease should, on the termination of illness, be at once disinfected. To effect this thoroughly, all crevices round windows and doors and the fireplace should be closed by pasting pieces of paper over them. Lumps of sulphur (brimstone), one pound for every thousand cubic feet of space, should then be put into a metal dish, placed by means of tongs over a bucket of water. This being set fire to, the doors should be closed, and the room should be allowed to remain without interference for three or four hours. After this time the windows should be thrown open, and when the fumes have disappeared, all the woodwork and walls should be thoroughly washed with soft soap and water, to which carbolic acid has been added (one pint of the common liquid to three or four gallons of water), and the paper from the walls stripped off. In whitewashed rooms the walls should be scraped, and then washed with hot lime, to which carbolic acid has been added. The windows should then be kept open for thirty-six or forty-eight hours.

Directions for Disinfecting Clothing.—The best mode of effecting this is by the agency of great heat, and when this is possible no other plan need be tried Unless, however, there are places built on purpose, this agency is hardly procurable. Failing this, boiling clothes in water to which some disinfectant has been added should be employed. Carbolic acid, one part of pure, or two parts of commercial acid to one hundred parts of water, is sufficient.

Woollen clothing cannot be treated in this manner, but must be exposed for some time to the fumes of sulphur, and afterwards freely exposed to the action of the sun and wind. Other methods of disinfecting linen and other washing materials may be used.

One gallon of water containing two ounces of

chloride of lime, or one fluid ounce of the solution of that substance or of Condy's fluid, or four ounces of common carbolic acid solution, may be used. In this the clothes should be steeped thoroughly, and afterwards placed in boiling water, or simply boiled. If Condy's fluid be used, the clothes should be merely immersed, and not allowed to remain for any time, otherwise they will be stained, but they must be rinsed in clear water. If any other disinfectants can be readily had, it is better not to use Condy's fluid for this purpose.

Directions for Disinfecting Discharges of Persons Suffering from Infectious Diseases.—There are several disinfectants which may be used for this purpose.

1. Two pounds of sulphate of iron (copperas or green vitriol) dissolved in one gallon of hot water, may be used either hot or cold.

Half a pint or so of this solution should be placed in all chamber vessels likely to be used by the patient when empty, and the same quantity should be poured over the contents after use.

2. Quarter of a pint of Calvert's liquid carbolic acid in one gallon of water may be used in the same manner.

3. A like quantity of Sir William Burnett's disinfecting fluid, or,

4. Of Condy's fluid may be similarly employed.

Directions for Disinfecting the Hands of Attendants.—After any duty connected with a patient suffering from infectious disease, the hands of attendants should always be put into one of the above solutions, prior to being washed in clear water.

Directions for Disinfecting Privies, Ashpits, Water-closets, Drains, or any Offensive Places.—Two or three pounds (according to circumstances) of sulphate of iron (copperas or green vitriol) dissolved in a gallon of water, may be thrown into the place requiring disinfection, in quantities of one quart or upwards, according to the necessities of the place, and repeat it so long as offensive odours exist.

Carbolic acid, Burnett's solution, Condy's solution, Calvert's or McDougall's powders, and Cooper's patent salts (the latter are inexpensive and not dangerously poisonous disinfectants), may all be used either separately or in conjunction for this purpose. All these articles when sold have full information regarding the quantities necessary for different purposes given with them.

It must be remembered that most of these disinfectants are very poisonous, therefore great care in their employment must be taken. They should be kept entirely out of the reach of children, should not be put into bottles or receptacles generally used for other things, and should invariably have a "poison" label attached.

With regard to the employment of disinfectants, it should be distinctly understood that they are merely aids in preventing the spread of infectious diseases, and that they must not by any means be entrusted to entirely for that purpose.

In the event of sewer gas, continued offensive odours or constant sickness occurring in a house, proper workmen should be obtained in order to see if any structural defects exist in sinks, drains, water-closets, privies, etc. If such should exist disinfection merely will be of no avail.—*The Sanitarian.*

Does Ergot Tend to Produce Abortion?—This important medico-legal point was discussed recently by the Obstetrical Society of Edinburgh. Dr. Keiller stated that it was generally supposed that it would produce abortion, but he thought this was doubtful. He referred to a case in which a medical man was accused of giving ergot in early pregnancy for the purpose of inducing abortion, premature labour having subsequently come on, causing the death of the female. He was asked to investigate the case, and to state his opinion as to the possibility of ergot bringing on the labour. The defence was that sarsaparilla was given, and not ergot. Chemical analysis having failed to detect the difference between the two drugs, the case fell to the ground. On the whole, his experience taught that, in early pregnancy, ergot did not act with sufficient power on the uterus to produce abortion. In the latter months, when the muscular fibres were developed, and in labour, when the fibres were prepared, or were already contracting, he had no doubt of the power of ergot in stimulating contraction, and thereby greatly facilitating the emptying of the uterus and diminishing the tendency to post-partum hæmorrhage.—*Reporter.*

CARDIAC DULNESS ENLARGED—PERICARDIAC FRICTION MURMUR—TREATMENT—RECOVERY.

REPORTED BY JOHN W. MARTIN, M.D.,

Late Assistant-Surgeon, Mayfield Factory Dispensary, Portlaw, Ireland.

M. B——, æt. 17, previously a strong healthy girl, a factory operative, came under my observation, March 15th, 1876. On Sunday, February 27th, in the course of a long walk to visit some relations, she was exposed to cold, and received a severe wetting. The following Wednesday, March 1st, she was attacked with a violent headache and severe cough, unattended by expectoration, and during the ensuing night had well-marked rigors, accompanied by severe febrile disturbances. These symptoms abated towards morning, allowing her to continue at work. Next day felt a pain in the region of the heart, and found great difficulty in going up or down stairs, the exertion producing dyspnœa. She neglected seeking advice until the date of these notes. At my first visit complained chiefly of the violence of the headache, and of the pain in the region of the heart. Surface of body hot, dry, and pungent to the touch. Face flushed. Bowels constipated; her tongue presenting a foul appearance, being thickly coated with a heavy white fur. There was no tenderness over the cardiac region. Heart's action excited; its impulse greatly increased in strength, and accompanied by strong fremissement. The area of dulness measured 3 × 3 inches from the upper border of the fourth rib on the left side, and from the middle of the sternum, opposite the fifth intercostal space, over towards the left mammæ. No special tenderness over the præcordium. Both sounds of the heart present, but altered in character. They were equalised in length, *the first* being indistinct and masked by a loud systolic friction bruit, which was widely diffused over the whole area of the heart's surface from the apex to the base; *the second*, short and greatly accentuated. A careful examination of the chest demonstrated a flattening of the percussion note throughout, but no absolute dulness. Respiratory sounds were roughened and tubular, there were no rales. She was troubled with a hard cough, unattended by expectoration. Pulse 120, full and hard. Urine abundant, clear, and high coloured. She has never suffered from illness, with the exception of attacks of rheumatism, to which she is very susceptible. The medical history of her family good. I ordered hot turpentine stupes to be applied over the chest, to be followed up with linseed poultices frequently repeated.

℞ Potass. bicarb., ʒiij.;
Tr. aconiti, ʒj.;
Syrupi, ʒj.;
Aqua ad, ʒviij. *m*

Two tablespoonfuls to be taken every fourth hour.

March 16.—Slight improvement in her general condition; special symptoms much as before. Removed to hospital. Treatment continued.

March 17.—Skin cool; free from pain or cough; slept well. Temperature, 98·3; pulse, 112, and firmer. General condition much improved. The area of cardiac dulness unchanged; heart's action stronger; *first sound* gaining strength; the *second*, strongly accentuated; friction bruit very loud and distinct over the whole surface of the heart, specially towards the apex. The physical signs of consolidation or congestion—viz., dulness, tubular respiration, loss of the vesicular murmur, and increased distinctness in the enunciation of the voice sounds present in the clavicular and sub-clavicular, the scapular, and inter-scapular regions. Urine passed in abundance, clear, and high coloured. Bowels regular.

Turpentine stupes and hot linseed-poultices ordered to the back of her chest.

℞ Potass. iodide, ʒj.;
Tr. digitalis, ʒij.;
Tr. cinchonæ, ʒjs.;
Sp. am. aromat., ʒij.;
Infusi cinchonæ ad, ʒviij. *m*

Two tablespoonfuls to be taken three times a day.

March 20.—Improving; *crepetus redux* heard in the affected portions of the lungs. Heart symptoms improving. Able to get out of bed. Changed the turpentine stupes and poultices for frictions with a stimulating liniment. Mixture continued.

March 23.—Tongue furred; bowels confined; urine depositing lithates freely; appetite variable; heart and lung symptoms much improved.

Pulse 96, full and firm. Directed a dose of castor-oil to be given, and changed the mixture.

℞ Sp. am. aromat., ℥j.;
Potass. bicarb., ʒij.;
Infusi gentianæ ad, ℥viij. *m*

Two tablespoonfuls three times a day.

March 31.—Convalescent. Area of heart dulness measured 2 × 2 inches in diameter; heart's action regular; impulse strong; both sounds normal; no trace of the friction murmur present. Lungs healthy; respiratory murmur restored to its proper vesicular character; percussion note everywhere resonant; voice sounds normal. Appetite healthy. Treatment continued.

April 1.—Discharged cured. Able to resume work.

In conclusion, I think the concurrence of accentuated second sound of the heart and the first appearance of the physical signs of complete consolidation in the affected portions of the lungs worthy of especial note as a clinical fact in the foregoing case.—*Med. Press & Circular.*

CLINICAL SOCIETY OF LONDON, ENGLAND.

Dr. Southey read notes of a case of Idiopathic Tetanus treated by Bromide of Potassium. The patient, a lad ten years of age, was admitted into St. Bartholomew's Hospital on Oct. 18th, having had symptoms of tetanus for eight days. There was a red military rash on the chest and abdomen. The spasms recurred at intervals of three minutes, commencing in the masseters, then involving the muscles of the neck and spine, and lastly, those of the limbs. Each fit lasted from fifteen to twenty seconds. In the intervals there was persistent rigidity of the jaw and neck. There was no sickness. The urine was passed in fair amount. The onset of the attack dated from a fright received on Oct. 8th, and on the 10th he had first pain and stiffness in the abdominal and cervical muscles. He was said not to have slept for eight days. He was placed in a ward by himself and put on a diet of milk and eggs, and prescribed ten grains of chloral and twenty grains of bromide of potassium. The next day the chloral was discontinued, and the bromide given in drachm doses every three hours. He had also a warm bath on this day, and for several hours was free from fits. On their recurrence the warm bath was repeated, and on the 20th the bromide was increased to one drachm every hour and a-half. These large doses of bromide were continued with the best results for eight days, their administration being prolonged for some time after all attacks of spasm had ceased. The patient, who emaciated extremely, steadily recovered. Dr. Southey mentioned that this was the second case he had brought before the Society of successful treatment of idiopathic tetanus by bromide of potassium, when administered in sufficiently large doses. The quantity of urea passed by this patient, during the continuance of the tetanus, was observed by Mr. Pye, and was appended to the case. The largest quantity per diem amounted to 16 grammes, the smallest to 10·4 grammes; mean average 12·72 grammes. During convalescence, the largest amount observed was 18 grammes, the smallest, 10·66; mean average of four days, 13·54 grammes.—In reply to Dr. Yeo, Dr. Southey added that the patient showed no signs of bromism.

Dr. Southey also read notes of a case of Parenchymatous Nephritis, in which the anasarca was combatted by drainage tubes. The capillary drainage tubes and tiny silver cannula employed by him in the treatment of the general dropsy were exhibited by him. The canulas were scarcely larger than the ordinary subcutaneous injecting-needles, and were introduced by a fine trocar. They terminated with a little bulbous extremity, over which the capillary india-rubber tube was drawn after its introduction into dropsical limbs. A tiny thread and small piece of adhesive plaster sufficed to maintain the canula in the skin, and the connected drainage-tube was conducted below the patient and into a pan beneath the bed. The large amount of serous fluid which might thus be withdrawn in dropsical subjects from a single prick in each leg was quite surprising. The fluid continued to drop away for as many hours as the tube was retained *in situ*, and without any discomfort to the patient. No escape of fluid took place beside the canula. The whole was conducted outside the bed, and several pints usually thus drained away from highly dropsical subjects each twenty-four hours. The recommendations were manifold of this exceedingly simple and

cleanly method of relieving anasarca when this was extreme. 1. Instead of several needle-pricks, all of which were painful and likely to form troublesome sores and centres for erysipelas to depart from, one, or at most two—only one for each limb—were needed. 2. The skin round about the puncture was not macerated by the oozing serum, nor irritated by it. 3. The patient was kept dry and warm and clean in bed. 4. The relief obtained was more speedy as well as more thorough. 5. Should the escape of fluid prove too rapid and become attended by circulatory disturbance in the dropsical limbs, or by uraemic symptoms, the quantity drawn off could be easily regulated, controlled, or temporarily arrested, by a tiny clamp placed upon the tube. 6. The serous fluid, which in cases of renal anasarca contained very large amounts of urea, could be tested for this, and the quantity thus escaping be exactly ascertained. Thus, in the particular case brought forward by Dr. Southey, the average amount of urea which was thus excreted amounted to 4·7 grammes, or 72·56 grains for twenty-four hours. In point of fact, Dr. Southey had drawn off as much as fourteen pints of dropsical fluid in twenty hours from a patient by two such tubes; and, in answer to questions put to him, he was able to state that he had seen no inconvenience arise from the maintenance of the canula in the skin in the same situation for forty-eight hours; the prick-hole closed at once and without ulcerating when it was withdrawn; and it was his belief that this mode of treating extreme and unyielding anasarca, from whatever cause arising, would come to be very widely adopted. The whole apparatus was as simple as it was easy of application, and entirely efficacious.—In reply to Mr. Howse, Dr. Southey said that the calf of the leg was the best place for the puncture; and the cannula, which was provided with a bulbous extremity, remained in place in the cellular tissue. The instrument had been made for him by Mr. Ferguson.

The Society then adjourned.—*London Lancet.*

The wet blanket pack (hot) is highly recommended by Dr. Washington in the treatment of neuralgic dysmenorrhœa, cramps, etc.—*Ibid.*

TREATMENT OF PHTHISIS.

In looking through the very excellent work which Dr. Austin Flint has written on phthisis, and which is based on a history of 670 cases, we were struck with the propriety of one or two of the therapeutic agents which Dr. Flint strongly recommends in the treatment of this disease, and which are by no means so much appreciated as they ought to be. We allude to active out-door exercise and a liberal allowance of stimulants. Change of habits, he observes, from the indoor and sedentary to out-door and active, is more favourable than any other hygienic measure. He has also seen many cases in which alcohol in large quantities seemed to do good, and he says he has seen no instances of bad moral effects from the habitual use of stimulants in phthisis. He has seen cases where as much as a pint of whisky has been taken with benefit daily by a girl of eighteen. Dr. Flint is not very partial to medicinal treatment, an opinion which is shared by Dr. H. Bennet and other English writers; and he observes that in many of the instances in which the arrest of the disease, partial or complete, took place, there was no medicinal treatment worth mentioning. He is also of opinion that the benefits derived in a large proportion of cases from change of residence are due more to incidental circumstances than to any climatic agency. The great efficacy of active out-door exercise, when it can be taken, is too well known to require any comment from us; but the propriety or not, of giving stimulants, is another question, especially at a time when total abstinence is so thrust upon our attention both in health and disease. We certainly should not like to administer whisky, even to a Scotchman, in the heroic doses above mentioned, but the evidence in favour of a liberal allowance of some spirit, or of some malt liquor—such as Guinness's stout—in some forms or stages of phthisis is too strong to be easily disposed of. We can call to mind several instances in which the free administration of alcoholic stimulants has had a marked effect in retarding the progress of phthisis, and no doubt there are many practitioners whose experience has led them to form a similar favourable opinion of them.—*Med. Press & Circular.*

THE MECHANICAL TREATMENT OF RHEUMATIC FEVER.

An article by Dr. Franz Riegel, of Cologne (*Archiv fur Klin. Medicin.*, Heft. v., s. 563-90), in which, *inter alia*, a *resume* is given of all the chief therapeutic methods which have been proposed of late years for the cure of acute rheumatism (and their name is legion), is interesting for its advocacy of a method from which internal remedies are entirely excluded—namely, the fixation of the rheumatic joints by means of splints. This method was first recommended by Seutin and Gottschalk in 1845, and more recently Concati and Tamburini (*Rivista Clin. di Bologna*, 1872), and in Germany Heubner (*Archiv der Heilkunde*, 1871), and Oehme (*Archiv der Heilkunde*, 1873) have spoken strongly in its favour, as giving the best results of any treatment in acute rheumatism. Heubner's verdict was to the effect, (1) that the pains were less severe than under any other system; (2) that the fever abated earlier, and (3) that the sweats were undoubtedly less annoying than under other kinds of treatment. Dr. Riegel's experience is founded on forty-one cases of acute rheumatism with multiple joint affection, which he treated consecutively in the Municipal Hospital at Cologne. It should be specially remarked that the splints were only applied, as a rule, to those joints which were most swollen and most painful; the other joints were either simply wrapped in cotton-wool, or had some narcotic liniment applied to them. No medicine was given internally. The apparatus used consisted of pasteboard splints thickly lined with cotton-wool, and attached in the ordinary way by means of straps or bandages. Each joint had two pasteboard splints applied to it; those for the knee, for example, being thirty-six centimetres long, and about sixteen centimetres broad, with a piece cut out in the middle of both, so as to adapt them better to the form of the joint, the knee being kept in an extended position. Before application the pasteboard was always wetted, to make it fit better. Dr. Riegel lays the greatest stress on the lining of the splints with wadding, for the latter must always be used in *very thick layers*, so as to render the pressure as even as possible over the whole joint. As it was found very difficult to apply splints to the hip and shoulder joints, they were only thickly covered with wadding, and fixed as far as possible with bandages. The results of this treatment were, briefly, as follows:—1. The application of the splints immediately relieved even pains which were previously most agonizing; and, as a rule, in all cases immediate relief was felt, and continued as long as the joint was bandaged. 2. It was found that the bandage must be allowed to remain on the joint, provided it is properly adapted, for several days after all the pain has completely ceased; and, if possible, it should stay on until the patient's general state, as well as his temperature, have become normal. It is better to let it stay on too long than too short a time. Quite exceptionally, Dr. Riegel has allowed it to remain fourteen days; on the average, it remained six to seven days. 3. The effect of this treatment on the temperature was less favourable than on the pain; in scarcely any case in which the thermometer was used throughout the whole course of the disease (as it was in some cases every two hours, day and night) was a marked fall of the temperature observed as an immediate consequence of the application of the splints; but, as a rule, unless there were complications or sudden relapses, the temperature gradually fell from the moment the apparatus was applied, and continued to do so until it became completely normal. 4. The fixation of the joints appeared to have no influence in preventing or modifying cardiac complications. In several cases the latter supervened while the joints were fixed, and after all pain had ceased. 5. The diminution of perspiration was not specially remarkable, though it seemed occasionally that the treatment exerted some slight influence over it.

It is scarcely fair to criticise a plan of treatment like the above without having had an opportunity of personally observing its various merits and demerits, but it seems *a priori* rather a cumbrous one for hospital uses, considering that it scarcely accomplishes much more than to relieve the patient's pains. We should like to know whether the application of the splints is not rather a painful operation, even though the after effects are so comforting. We are not sure that some patients would not resent such handling of their joints in a very outspoken manner, especially in private practice. Where opium, however, is contra-indicated, and pain is severe, the fixation system may well receive a trial.—*Medical Times and Gazette*, March 31, 1877.—*Clinic.*

Surgery.

CASE OF SCIRRHUS OF PROSTATE.

(Under the care of Dr. Dickinson.)

Primary scirrhus of the prostate is so rare that the only other case with which we are acquainted was recorded by Mr. Adams in *The Lancet*, 1853, vol. i., p. 394. Some have even denied its existence, but the evidence of the occurrence of this condition cannot fairly be impugned. When cancer commences in the prostate, it is almost invariably encephaloid in character. Last year Mr. Butlin showed at the Pathological Society (see *The Lancet*, 1876, vol. ii., p. 574) a specimen of primary scirrhus of the bladder, but in this case the prostate was almost entirely unaffected. The subjoined notes of this case, for which we are indebted to Mr. A. Craigmile, M. B., house-physician, will therefore be read with great interest.

G. B.——, forty-seven years of age, a sailor, was admitted into the medical wards on Oct. 20th, 1876, suffering from chronic rheumatism. The pains in the joints soon passed off, but as he remained very weak, a more careful examination was made, and he then stated for the first time that he had pain and difficulty in passing water. He had had gonorrhœa a year before, followed by stricture, for which he had been treated by instruments. The perineum was hard and cartilaginous, and there were two fistulous openings there. The glands in both groins were considerably enlarged, especially on the left side, and all were of a stony hardness. On examination per rectum, a hardened mass was felt, corresponding in size and shape to an enlarged prostate, and so hard as at once to suggest scirrhus, especially when associated with such glands. No catheter could be introduced beyond the stricture, but as morphia suppositories were found to give him ease in making water and freedom from pain, no further attempt to cure the stricture was made. The other signs were those of persistent cystitis, and occasionally he passed blood. He got gradually weaker, and the cancerous cachexia became more marked. He died on the 12th of January, 1877.

The post-mortem appearances were the following:—The tissues at the base and sides of the bladder were all matted together and thickened. The prostate was about the size of a horse-chesnut, and when cut into had all the appearance of scirrhus. There were three glands lying along the right iliac vessels much enlarged and hardened. The bladder showed well marked signs of cystitis, both ureters were greatly dilated and thickened, and the kidneys were undergoing atrophy from the backward pressure of the urine; but all these changes seem to have been due to the stricture rather than to the disease of the prostate, since the prostatic portion of the urethra was of normal size, and the tumour did not seem to obstruct the outflow of urine. There was no appearance of cancer elsewhere, nor any other noteworthy change in any of the organs. Microscopic examination showed great dilatation of the tubes of the gland, with large collections of cells in them, as in ordinary glandular carcinoma, but there was exceedingly little infiltration of the muscular stroma, which seems to be characteristic, for Rindfleisch, quoting another authority, says it is confined to the glandular elements, and that the stroma remains passive. The enlarged glands were also cancerous when examined. The kidneys both showed well-marked interstitial nephritis.—*London Lancet.*

"Spontaneous" Cure of Hip Disease.—There was exhibited at a late meeting of the New York Pathological Society the head of a left femur, illustrating a spontaneous cure of hip disease, notes of which appear in the *Medical Record* of New York. It was removed from a boy eleven years of age, who had died of gastro-intestinal disorder. The deformity of the hip presented the appearance of a dislocation of the head of the femur on the dorsum ilii. On examining the joint at the post-mortem, the muscles in its immediate neighbourhood were found well developed, the sinuses which had existed during the progress of the disease had entirely healed, and the bone itself presented no signs of actual disease. The head of the bone, however, was firmly fastened in the acetabulum; a portion of the caput femoris was entirely gone, the remainder being considerably eroded along its whole extent. The point of interest was the alteration of the relation of the head of the bone to the shaft, so that it assumed the position of a right angle. There was no dislocation present; but the alteration in the angle of the neck of the bone gave a general direction to the limb resembling that deformity. The disease of the hip dated from 1871.

CONGENITAL NÆVOID GROWTH OF THE CHEEK: OPERATION: CURE.

(Under the care of Mr. Rivington.)

Rosina B., aged 9, was admitted into the London Hospital on April 12th, 1875. The patient's mother noticed a swelling on the temple the second day after the child's birth; it increased in size downwards, and enlarged so much, that it rested on the neck. After a time, it became smaller and again enlarged until she cut her teeth. At times, the tumour was painful. About four years previously, it became less and not so painful after an attack of bronchitis. The growth was distinctly lobulated. There were four separate masses; one under the zygoma, one below the orbit, a third in the cheek, and a fourth near the margin of the lower jaw towards the angle. The integument was natural in appearance. On the 26th, Mr. Rivington, who had pronounced the growth to be a congenital nævus partially degenerated, made an incision on the inside of the cheek, through the mucous membrane, with the intention of turning the whole of it out, if possible; but this proved to be impracticable, on account of the firm attachments. Moreover, the lobules were discontinuous. The portion of the growth, however, in the cheek was carefully dissected out without injury to any of the important structures adjacent to it. The fourth and lowermost lobule and the remaining lobules were punctured, giving exit to pent up venous blood, after which they collapsed. Considerable inflammation followed the operation. An abscess had to be opened and a drainage tube inserted. One or two sloughs came away. There was much constitutional disturbance, but both it and the swelling began gradually to subside. As soon as she was well enough, the patient was sent to the seaside. At that time, her cheek was not smaller than before the operation; but, as was anticipated, gradual absorption of the inflammatory infiltration took place, and, when (in November) she returned to the hospital to show herself, her cheek was so much smaller, that she might fairly be called cured, notwithstanding the remnant of fulness which was perceptible to a slight extent in the neighbourhood of the zygoma. She was in the hospital in November for an abscess in the buttock.

Examination of the mass removed showed clearly that it was a nævus undergoing fibrous degeneration.

Remarks.—The diagnosis of imbedded nævus rests partly on the physical conditions, but especially on the fact that it undergoes sudden changes in size, swelling rapidly at times and then subsiding again. This was the early history of the present case; hence the diagnosis. That the nævus was degenerating, was inferred from the fact that it had for some time ceased to undergo these sudden alterations. It was thought by some that the tumours in the cheek were fatty, the characteristic symptom of the nævus being overlooked.—*Brit. Med. Journal.*

The Passage of Foreign Bodies through the Intestinal Canal.—Mr. Denton's case of "a shawl-pin passed *per rectum*" (Journal, March 17th) induces me to record my experience of similar cases. The line of treatment adopted and the subsequent issue prove the practical value of non-intervention in such cases. Case 1 was that of a male lunatic who suffered from paroxysms of recurrent mania, with strong destructive propensities. One day he secreted a smoke-shade, a remnant of which was afterwards found in his possession. In a few days, there were symptoms of anal irritation, and he was observed to use his fingers for the purpose of extracting bits of glass. In the course of three weeks, five hundred of these, all more or less angular, and some, strange to relate, over two inches long and finely-pointed, were passed *per rectum*. The passage of the larger pieces gave rise to excruciating pain, and the patient, who ate very little during the time, was allowed to remain in bed and have an opiate. The other cases, two in number, were boys, one of whom swallowed a halfpenny and the other two penny pieces. Rest was the only treatment enjoined, the result being the appearance of the halfpenny in one week, and of the larger coins at the end of three weeks. Beyond the fright there was no inconvenience in the latter cases. The first case is a good illustration of the conservative efforts of Nature, and all three demonstrate the good effects of non-interference; indeed, to excite the peristalic action of the intestine by giving purgative medicine, especially in the presence of sharp bodies, must be fraught with danger to the integrity of the intestinal tube. Rest, therefore, with or without an opiate, would seem to be the proper treatment.—Alexander McCook Weir, M.D., etc.—*Brit. Med. Journal.*

STRANGULATION OF THE MUSCULO-SPIRAL NERVE.

Dr. Alexander Ogston gave some details regarding the case of a young lad who had compound fracture of his left humerus about the middle of the bone, the muscles being much torn and bruised. He stated that Dr. Edwards of Stonehaven first saw the case, and put up the arm as usual; and that the case progressed satisfactorily, the limb becoming able to perform its functions, although the soft parts seemed more bound down than usual. Soon, however, the extensor muscles of the forearm became wasted, the flexors continuing as before, and sensibility remaining perfect over the whole limb. The extensors after a little almost disappeared, and the limb became useless. At this stage, Dr. Ogston first saw the case in consultation; and, after considering all the circumstances, it was thought advisable to cut down on the musculo spiral nerve to try to discover its condition. A long incision was made, and the upper part of the nerve was found disappearing into the substance of the humerus at the seat of fracture, and reappearing at the other side of the fractured part lower down. The bone was cut into carefully, and the nerve was found lying right through the medullary cavity of the humerus unbroken, but reduced by pressure to about one-third of its natural size. It was lifted out and attached to the triceps by catgut sutures. The case was still under observation; and Dr. Ogston would report on it at a future period. Since the operation, there had been no increase in the power of motion of the extensors of the arm. Galvanism had not been tried, but was to be resorted to. In conclusion, he remarked on the different effects of strangulation of nerves. Sometimes intense pain and paralysis were both present; sometimes pain alone was the urgent symptom; and occasionally there was paralysis without pain.—*Brit. Med. Journal.*

The repetition of prescriptions containing drastics, emetics, diuretics, emmenagogues, opiates, or other powerful agents, is prohibited by a law recently passed in Germany. These can only be refilled at the express direction of the physician first prescribing them.

PRICKLY HEAT.—*To the Editor of the Lancet.*—SIR,—I should like to bring before the section of the profession practising in tropical climates the following powder as a cure for that troublesome skin disease, "prickly heat." I used to suffer myself dreadfully, and tried all the supposed remedies, without deriving any apparent good. Some, as carbolic acid, appeared to produce intolerable itching at night. Lately I have seen the local application of sulphate of copper recommended. The powder has the following percentage composition:—

Sulphur sub.	80
Magnes ox.	15
Zinci ox.	5
	100

To be used morning and evening in the following way:—The dry powder being on a plate, a wet sponge is pressed down on it, and a certain quantity will adhere; this is firmly rubbed on the parts affected, fresh moisture and powder being from time to time supplied, the application being continued ten to fifteen minutes each sitting. The parts are then washed clean of the adhering particles. I have never seen the worst cases last beyond four or five days. So complete would the cure be that it would be impossible to say if the person ever had the disease. No smarting attends its use, and after the first application itching is practically at an end. Also in that form of prickly heat resembling urticaria it effects a perfect cure, and the powder used once or twice a week as described will keep the skin in a perfect condition. I expect the sulphur acts as stimulant, the magnesia as stimulant neutralizing the free acid of the sweat, and the oxide of zinc as astringent. Be that, however, as it may, its effects on the skin are certainly remarkable, and I should like to hear of success attending its use.—I am, sir, yours &c., HENRY LEVINGE, A.B., M.B., Surgeon, R.N. H.M.S. *Topaze*, Jan. 25th, 1877.

Eight cases of transfusion were lately performed in one of the Philadelphia hospitals, in five of which the results were highly satisfactory. In one case a very low stage of puerperal fever, the pulse was reduced from 160 to 120 per minute in a short time. From ten to twelve ounces of defibrinated blood is generally injected.

Midwifery.

RUPTURE OF A UTERUS BY MOLESWORTH'S DILATORS.

At a recent meeting of the Obstetrical Society of Philadelphia, Dr. Albert H. Smith presented a uterus which had been ruptured at the fundus during dilatation with a Molesworth dilator, and read the following history, prepared by one of the attending physicians:—

"Mrs. H., aged twenty-six years, was delivered of her third child, December 21, 1875, after a prompt and easy labour. She made a good recovery, but was obliged to resume the care of her family at an early date.

"Menstruation occurred in the early part of April, 1876; was not repeated in May. About the first of June she made complaint of bearing down and weakness, for which rest was enjoined, with the use of tonics and a Hodge pessary.

"On the 12th it was found that she had been having discharges of blood in coagula for three or four days, accompanied with pain as of labour. The os was patulous, and the cervical canal filled with shreddy masses having the appearance of deciduous, or even placental tissue.

"Rest in bed relieved in a measure the tendency to discharge, but its recurrence followed any exertion. This, together with an apparently enlarged condition of the uterus, confirmed the first impression of an incomplete abortion, and seemed to warrant a dilatation of the os, for the purpose of removing any remaining substance. The attempt was made with Molesworth's dilators, each tube being wrapped about one-half its length, so as to operate upon the cervix only. The os yielded with less ease than is commonly observed after an abortion, but, in time, became sufficiently open to permit the introduction of the finger. A prominence found near the fundus was supposed to be placental tissue. Under this impression, and with the desire to spare the patient further risk of hæmorrhage, or a repetition of manipulations, the No. 3 tube was again introduced and carefully distended. Some resistance was realized in withdrawing it, and on its removal it seemed pouched at the end, as though that part only had been distended. With consternation it was discovered that the uterine wall had been ruptured, so that the finger was brought in direct contact with the lumbar vertebræ. The patient, still partially under the influence of ether, sank into a profound prostration, in which immediate death seemed inevitable. She rallied, however, under vigorous stimulation, and lived nearly four days, passing through the ordinary symptoms of metro-peritonitis."

Dr. Smith had seen the case in consultation on the day after the rupture, when the patient presented all the evidences of approaching death from peritonitis. The accident happened under the hands of two very careful and conscientious practitioners, and the specimen is brought forward, not as the result of carelessness or of reckless trifling with the life of a patient, as the condition which predisposed to the accident could not have been diagnosticated. The specimen was submitted for examination to Dr. J. Gibbons Hunt, who found that the uterine tissue was occupied around the seat of rupture with a sarcomatous mass, about the size of a small walnut. Against this the sudden pouching of the dilator had driven it with so much force that the tissues gave way, and the opening into the abdominal cavity followed. The instructive lesson to be drawn from this case is, firstly, the necessity of testing thoroughly, before each insertion, an instrument of such immense dilating power as this possesses, and so likely to do damage if it should give way unexpectedly while in the uterus. Secondly, and especially, the danger of rapid dilatation in cases of unrecognized degeneration of tissue. Here the cervix was soft and healthy. The history of the patient and the careful examination of the uterus led the operator altogether away from the suggestion, of malignant disease or of any morbid growth whatever, and there could scarcely be presented a condition of things apparently more favourable for rapid expansion of the cervix. When we have a means so safe as the sponge-tent, or, in cases of slow dilatation, requiring frequent repetitions of the operation, so perfectly unobjectionable as the sea-tangle, we should certainly hesitate about using such an instrument as Molesworth's, except in cases free from any doubt as to the condition of tissues.

Dr. Morris considered Molesworth's dilator a most valuable one, but it is not free from objections and imperfections. Having longitudinal folds, and the closed end being unyielding, the tape wrapping can be so arranged as to locate exactly the distending power. In this case the unwrapped portion had been pressed too far into the cavity of the uterus, and had exerted its force on the walls of an organ already undergoing sarcomatous degeneration, and this latter was the real cause of the accident. He preferred air to water as the distending agent.

Dr. Goodell had always felt afraid of Molesworth's dilator, and, although possessing one, had never used it. He considered that the sarcomatous degeneration had rendered the uterus friable. Probably, in this instance, the bulge of the dilator being partly above the internal os, the instrument had, from its cone-like shape, slipped further in and pressed against the fundus with a force that the diseased tissues could not resist.

Dr. Smith disclaimed all intention of speaking against the Molesworth dilator. We cannot compare it with Barnes' dilators, because the latter are not applicable to dilatation of a non-gravid uterus, nor of an os uteri long contracted after the expulsion of a fœtus in abortion. There is not power enough in the bags to make any appreciable impression during a length of time in which it would be feasible to keep up the use of the dilator. He found air entirely inefficient in dilating the tubes, although the syringe was filled several times and its contents forced into the tubes. There was danger, in case of rupture of the instrument, of air finding its way into the uterine sinuses. When using water the dilation does not begin at the exact point where the wrapping ceases—a margin should always be allowed.—*American Journal of Obstetrics*, April, 1877.

Dr. Lett, who leaves for the Toronto Lunatic Asylum, as assistant physician in place of Dr. Metcalf, has been presented with an address by the Medical Association of London, expressing regret at his departure from among them. Dr. Metcalf takes Dr. Lett's place in London.

APPLICATION OF FORCEPS IN HEAD-LAST PRESENTATION.

BY EUGENE P. BERNARDY, M.D.

Is there more danger to the child in having the after-coming head delivered with the *forceps* or by *powerful traction* made upon the body of the child? Is it consistent with common sense that the slender and delicate neck of a child should be pulled and dragged on with such pertinacity? I am certain no child's neck was ever made for such purpose, and I certainly believe that there is almost in every case some damage done either to the mother or child, in some cases to both.

Prof. Meigs, in his excellent work on obstetrics, claims the forceps as the child's instrument; and truly it is in head-last presentation.

I am certain that by the application of the *forceps* on the after-coming head we give a better chance to the child for its life, with less danger of inflicting any injury on it or the mother.

I will cite some cases occurring in my practice, and the method of treatment adopted in each. * * * * * * *

In looking over the above cases it will be seen that three cases were delivered by traction, four cases delivered by traction and forceps, and five cases delivered by forceps *alone*. In all the cases where the forceps were applied at once *the children were born alive and uninjured.*

In Case VII. the patient was delivered twice, once by traction and forceps, which gave a dead child; the second time where the complications were of the most serious character, and where the chances for the child were greatly diminished, by the timely application of the forceps I was able to deliver a living child.

Where traction was resorted to before the application of the forceps, all died. Out of three cases delivered by traction alone, only *one* was uninjured.

The above record shows most decidedly in favour of the early application of *forceps*, for we have here twelve cases in all,—five cases delivered by the forceps alive and uninjured, while of the other seven cases we have the history of only one case uninjured. I may here state that in nearly all the cases supra-pubic pressure was employed in conjunction with traction.

I cannot be convinced that it is safe to apply on the body the amount of traction as stated by some writers. I know of two authentic cases where by the use of powerful traction detruncation of the fœtus occurred. There is no necessity for these sad consequences, for with the forceps we have the head entirely at our command, and the force is applied directly on the strong head of the child.

Another pernicious rule which some writers recommend, is to introduce one or two fingers in the child's mouth and make traction. I most decidedly condemn such practice, for I am certain that no child's inferior maxillary could stand such traction without being dislocated or fractured.

Some of the points in favour of the forceps are :

1. In a deformed pelvis or an abnormally large head, by the application of the forceps we can reduce the volume of the child's head without injuring it, rendering it as much as possible in accordance with the conformation of the pelvis, and also reducing the ratio of injury to the mother ; injuries which must occur where powerful traction is made.

2. In breech, especially in artificial breech or breech made by version, there is more or less extension of the head, which the forceps can readily correct, and which if traction is used can only be corrected by the most powerful effort.

3. By the application of the forceps on the after-coming head we have complete control of it, and can easily correct any malposition, and place the head in the most favourable position for delivery, with the least amount of risk to mother and child.

I do not wish it to be understood that I advocate the application of forceps in every case of head-last presentation, but I most decidedly recommend and give preference to the forceps in cases where powerful traction is demanded.

In the application of the forceps on the after-coming head, we have not, as some believe, insurmountable difficulties to overcome. The body of the child does not interfere materially; the child's body with its arms is given in charge of an assistant or nurse; the back of the child is brought well over the mother's abdomen, in anterior positions (patient lying on her back) ; while in posterior positions the back of the child is brought well towards the mother's back (the patient lying on her left side); this will place the child's body almost entirely out of the way, and we have only to apply the same rules here that govern us in the application of the forceps in head-first presentations.

In head-last presentations we must bear in mind that a life trembles in the balance. A few minutes at the most will decide the child's fate : therefore, why hesitate ? If it is found that slight traction cannot bring the head, apply the forceps at once, and deliver.—*Phil. Med. Times.*

CONTRIBUTION TO THE DIAGNOSIS OF OVARIAN DISEASE.

The *Medical Times and Gazette* informs us that a short essay lately published by Professor Guido Baccelli, of Rome, deals with the percussion of the ilium as an aid to the diagnosis (1) of simple ovaritis, (2) of a commencing ovarian tumour, and (3) of the side of origin (right or left) of a large ovarian tumour whose early stages are unknown. Percussion of the diaphysis of the ilium, according to the author, gives rise to acute pain in simple ovaritis unaccompanied by diffused peritoneal inflammation. An ovarian tumour gives rise to marked dullness on the side on which it is situated, while there is a clear tympanic resonance on the side of the healthy ovary. Thus, if the left ovary be enlarged, there is dullness over the left ilium, and resonance over the right ; and *vice versâ*. The rules to be adopted in percussing are as follows :—The patient must lie on her side, with the legs drawn up, and the thigh which is uppermost adducted and pressed toward the abdomen, so as to place that part of the diaphysis of the ilium which lies below the centre of the insertion of the gluteus medius muscle in the position best adapted for percussion. The exact point of the external surface of the ilium to be percussed is a little below the centre of a straigt line drawn from the posterior-superior border of the iliac crest to the upper edge of the acetabulum. Taking the average length of this line as ten centimetres, the point to be percussed lies between five and six centimetres below the posterior edge of the crista ilii. It is necessary to percuss forcibly, and it is better to use a pleximeter and a hammer than the fingers only. The two sides must, of course, be percussed at identical spots. The practical value of this method is illustrated in the essay before us by two or three striking cases, in which it was most successfully applied to clinch a doubtful diagnosis ; and we are assured by Professor Baccelli that these are not the only ones in which it has stood him in good stead.—*Med. and Surg. Reporter.*

DILATATION OF THE UTERUS.

Dr. Lombe Atthill, in his address on Obstetric Medicine before the British Medical Association, says:

"I am well aware that by some practitioners the dilatation of the uterus is still looked on with dread, and the attempt, if made at all, is undertaken with the greatest hesitation. I can only say that I believe these fears to be groundless, and that, if due care be taken to select suitable cases, and proper methods of carrying out the process be adopted, the treatment is a safe as well as a justifiable one. My own experience of the dilatation of the uterus has been great. I have practised it very frequently, indeed, during the last ten years, and as yet in no single instance has a bad symptom followed, nor have I even once been compelled to abandon the attempt. But I am far from throwing doubt on the accuracy of the statements made by others, who have recorded the occurrence of alarming symptoms, or even of death, as consequent on the attempt to dilate the cervix uteri; and I am quite prepared for the possible occurrence of such, for all are aware that cases must occur in which the most trifling exciting cause will be followed by serious symptoms, though no grounds existed beforehand for anticipating the occurrence of such. But these are exceptional, and I believe, as a rule, that when serious symptoms arise, either during the process or in consequence of dilatation of the cervix uteri, they do so either because an unsuitable subject has been selected in whom to practise the treatment, or an unwise method adopted for carrying it out. On examining the records of the case in which serious or unpleasant symptoms followed the attempt to dilate the uterus, I find they have generally occurred when practised:—

"1. Either for the relief of dysmenorrhea depending on the existence of a narrow cervical canal;

"2. When the cervical canal is encroached on by a fibroid of large size and unyielding structure;

"3. When the process has been attempted to be carried out rapidly by means of metallic dilators; or,

"4. When it has been protracted over several days.

"I have, therefore, in order to guard as far as possible against the serious results recorded by others as following attempts to dilate the uterus, laid down for myself the following rules, which I can recommend with confidence to others:

"1. Never to dilate the cervix uteri for the cure of dysmenorrhea or sterility depending on a narrow cervical canal or conical cervix.

"2. Never to dilate in cases in which a large and dense intramural fibroid presses on and partially obliterates the cervical canal.

"3. Never to use metallic dilators of any kind, but to choose for the purpose either sponge or seatangle tents, which expand slowly and gradually.

"4. Never to continue the process of dilation for more than forty-eight hours. I prefer, in a few cases I have met with, in which, after the lapse of that time, the cervix was not sufficiently opened to suit the purpose I had in view, to postpone all operative interference for some weeks rather than risk the result by prolonging the dilating process.

"With respect to the first of these rules, I look upon the treatment of what is termed 'mechanical dysmenorrhea' by dilatation as altogether a mistake. I doubt if any permanent benefit has ever resulted from it; while in several cases grave symptoms, and in one death, have, to my knowledge, followed the attempt. Equally it is of importance not to prolong the dilating process. My own experience in the treatment of uterine diseases requiring dilatation leads me to this conclusion, that unpleasant symptoms are likely to occur in a direct ratio to the length of time over which the process of dilatation extends. Again, I have known death to follow the attempt to dilate the uterus in a case where a large fibroid, of dense structure, giving rise to menorrhagia, and causing intense pain, was developed in the uterus, and encroached on the cervical canal. In such case dilatation is doubly objectionable, because the process is useless as well as dangerous; useless, because you will generally find that any attempt at operative interference from the interior of the uterus will be impossible; and dangerous, because inflammation is liable to follow, and that, too, in patients in the worst possible condition for resisting the attack."—*Medical Reporter.*

Medical Jurisprudence.

THE BORDER-LAND OF INSANITY.

BY EUGENE GRISSOM, M.D.

(*Concluded.*)

The poet, Shelly, some compassionate hand has described as "a wild and wayward figure, like the Faun of the imagination, or those strange and beautiful beings dwelling between earth and heaven, on the heights of Gothic fancy." He was a spirit of the intermediary world—a wandering genii—nothing more. Before twenty years of his young life had gone by, he had cut himself off from his family and ruined his career. He was a spirit of the race of Ariel. At Eaton, aged fifteen, his one idea is resistance to God, to man, to laws, to authority, to whatever opposed him. This, indeed, is the central idea of his great poem, *Prometheus.* He leaves his classes to study electricity under a Dr. Lind, when he and his preceptor indulge in bouts of blasphemy, striving each to curse the heavier, the one his father, the other the King; often at midnight he sallies forth in hope to call up the evil spirit.

At Oxford, see him a slim lad with unnaturally brilliant eyes, stooping shoulders, and strange voice, like a peacock's cry; he lives amid his crucibles, feeds upon bread almost entirely, which he tears from the loaf as he walks, lingers for hours to throw stones in ponds, or sailing paper boats. That was his passion all his life, and he has been known to use a fifty pound note, when no other paper was near. Engaged in zealous debate, he would suddenly stop, fall like a cat on the rug, and sleep for hours with his little round head exposed to the fiercest heat. He imagines, and tells everybody, when he was expelled, that it was for publishing a book of infidelity, a pure delusion, for he had only read it. The sentence really was for his scurrilous letters to eminent men who were strangers to him. His sisters sent him money by Harriet Westbrook, their schoolfellow. She hates the tyranny of school, and he marries her in his sympathy—one sixteen, the other not nineteen—to go roaming through England, Scotland and Wales. Finally they drift to Ireland—and for what? To issue pamphlets and speak for Catholic Emancipation. Returning to Wales, he imagines that some one has fired at him, and put a hole through his gown. He utters a breathless cry to his friends for breathing time and twenty pounds. They pay it and smile, but he declares all the after fluctuations of his health were due to that shock. In this year, 1813, *Queen Mab* was written. This, the most celebrated of his works, is to investigate what he called the horrors of Religion, the falsehood of Revelation and the cruel ficton of Christianity.

Next year he falls in love with Mary Godwin, and reveals it in a strange scene within St. Pancras' churchyard, by the grave of her own mother. He told her if supported by her love, he would enrol his name among the wise and good. He abandons his wife at the cottage in Brockwell, his child, the baby Ianthe, and his unborn babe, to fly to the continent with Mary, never to see wife and children again. Yet he speaks in quiet friendliness of this abandoned wife, this desolate mother not yet twenty, and proposes to a lawyer that Harriet be invited to join his new household in the capacity of humble friend to himself and Mary, and can hardly be brought to see the impossibility of such a proposal. Despite her sweet amiability, the betrayed wife bore her sorrows two years and then drowned herself.

Now he marries Mary, and going to Switzerland, where they meet Byron, a dark episode in their lives ensues, upon which the pen refuses to touch—let it be buried in night! He rages against English law, because, now that he is rich, the custody of the children is denied to him who murdered their mother—children whose home he has passed many a time, and never once turned to look upon—the unnatural father. Driven by a delusion that the child of Mary will be taken from them by the law, he hastens to Italy. There that hateful poem is given to the world, *Beatrice Cenci.* Strange anomaly, that the brain which conceived that hideous dream, should have produced the *Skylark!* He wanders from Pisa to Rome, from Venice to Naples, making romances to himself of lovelorn ladies following him afar off. His thirtieth year was not completed when his frail pleasure yacht went down in the Bay of Spezzia,

and his washed up corpse was burned by his friends with a theatrical show of incremation. Poor wandering voice, absolutely dead to the distinctions of right and wrong, to true love for kindred, or reverence for God! Yet his admirers, the Swinburnes and Rossettis of to-day, call him "the greatest English poet since Milton, and the greatest Englishman of his time." Who can doubt that, but for accident, the torch of life would have burned out with the glare of madness?

I feel that this sad catalogue should come to a close, and will but briefly say that among the great number whose names belong here, are the melancholy poets, Pollok and Young; Harrington, the author of the famous *Oceana*, whose madness was extreme; Simon Browne, the celebrated divine, whose delusion was that his soul was annihilated: Robert Boyle, the philosopher, who could barely refrain from suicide: Metastasio, the father of Italian opera; and Robert Hall, of whom Prof. Sedgwick declares, "For moral grandeur, for Christian truth and sublimity, we may doubt whether his sermons have their match in the sacred oratory of any age or century." Observe that Robert Hall read *Butler's Analogy* and Edwards on the *Will* at nine years of age; wrote religious essays at ten; became a Baptist minister at sixteen; and, laboring at mental work twelve hours a day, soon was conveyed to the ward of an asylum. Upon recovery and rash excess in work again, he was sent once more to its friendly walls. The great critic Dugald Stewart, endorsed by the Reviews, affirms: "Whoever wishes to see the English language in perfection, must read the writings of Robert Hall."

Who that heard it forgets the thrill through Christendom when the world knew that Hugh Miller had taken his own life? By constitution, superstitious and morbidly suspicious, the child of a sea-faring man lost in a storm, his mother filled the boy's mind with weird, Celtic tales, the ferment of superstitious fears. Battling in after days between skepticism and truth, he cuts himself fearful back strokes; all his life a terrific intensity of mental vision characterized him, and the victim of misunderstandings among friends, and the chimeras of his fancy, he died at his table by his own hand, in a dark hour when reason had left her throne.

Paganini, the violinist, whose execution has never been equalled by mortal man, was a being with an intensely susceptible nervous system, often deprived of the power of speech, with a pale, bony face, frequently of livid green; at times, it was said, he seemed to be out of the body. His contradictions he could not himself explain—dashing from city to city with utmost speed, with all the windows of the carriage closed even in the hottest weather; he entered no inn, nor spoke when he was addressed. Arrived at his hotel, he removed his clothes, and threw open doors and windows for what he called his air bath. He lay on the sofa, passed days without eating, drank his chamomile tea and sat in perfect darkness at night until his hour for sleep. Sixty people have been waiting to see him, but he took no notice of knocks, and sat, lost in trance. No wonder the mob believed him a murderer whom the evil spirit had taught to play upon one string with such wonderful music, when a convict in the condemned cell. After astonishing a world, he gave his dying moments to the feeble notes of his violin in the moonlight, by the blue Mediterranean, with the breeze waving softly in the trees, as he expired broken hearted—his spell was over. Dying without the sacraments, his body was refused Christain burial, and it lay above ground five years, until the vulgar stories of ghostly violins playing about the coffin, impelled the son to pay large sums of money to obtain the privilege at last to bury his father in the village near his home, where his ashes were finally laid to rest in May, 1845.

We will turn aside to read some passages from the career of Junius Brutus Booth, the most eminent actor that America ever produced. From his memoirs, as penned by his own daughter, we learn that he had undoubted periods of madness. To use her language:

"The calamity seemed to increase in strength and frequency with maturer years, and sometimes assumed very singular phases. From childhood, we learned from our mother, the devoted and unweary nurse of him who endured these periodical tortures of mind, to regard these seasons of abstraction with sad and reverent forbearance."

So completely did he merge his own identity into that of the character he assumed, that most of his fellow actors dreaded to face him as Richmond on the stage, in the last struggle of Richard, lest he should really take their lives; for frequently he had to be reminded that he was personating a character, and must allow himself to be slain.

His salvation from utter wreck, for many years, was his love of the soil, the happy retirement to the work of his garden in the open air, away from the feverish excitement of the theatre.

On one occasion, while on a voyage south, he spoke of the actor, Conway, who had committed suicide by leaping into the sea. As the vessel neared the spot, Booth cried out that he had a message for Conway, and jumped into the ocean; but a boat was lowered at once, and he was saved. Yet the suicidal impulse was so quickly over, that he called out, when once safe in the boat, "I say, Tom, you are a heavy man—be steady. If the boat upsets, we are all drowned."

It is well known that, in Charleston, after he had played Iago one night, and returned to their room, with his friend Flynn, who had been the Othello of the evening, that he attacked him fiercely with his drawn sword, crying:

> "Nothing can or shall satisfy my soul,
> Till I am even with him—life for life."

Flynn, to save his life, grappled the fire-poker, and struck Booth in the face, breaking his nose. On another occasion, he came near sacrificing the life of the actor, Eaton, in the same play.

He was supposed by turns a Jew, for he knew Hebrew, reverenced the Talmud, and attended the synagogue, joining the worship in the Hebraic tongue. He was familiar with the Koran; and again he was a devout Catholic. It is related, that while a Catholic, he once walked from his house, in Hartford county, Maryland, to Washington, with leaden inner soles to his shoes, by way of penance for some sin.

Few of his eccentricities were more remarkable than his desire to leave the stage at $300 a night, when thousands hung upon his lips, and money and fame were his everywhere, for the post of light-house keeper at Cape Hatteras, for $300 a year. We learn that this memorandum exists, in his handwriting:

"Spoke to Mr. Blount, Collector of Customs, about Cape Hatteras light-house. He offered it to me, with the dwelling-house and twenty acres of land, and a salary of $300 per annum, for keeping the light—Government providing the oil and cotton—a quart per diem. Grapes, melons, cabbages, carrots, and onions grow there. Rainwater the only drink—a cistern on the premises for that purpose. Abundance of fish and wild-fowl: pigs, cows, and horses find good pasture. Soil too light for wheat or corn. The office is for life, and only taken away through misbehaviour. Light requires trimming every night at twelve o'clock; no taxes; firewood from the wrecks. Strawberries, currants, and apple trees should be taken there; also a plough, spades, and a chest of carpenter's tools. Pine tables the best. Mr. Blount is to write me word if the office can be given me, in April next, from his seat in Washington, N.C."

It is needless to say that theatrical managers broke up the plan at headquarters.

Booth permitted no animals to be killed on his place, ate no animal food, nor allowed it in his house, for many years. It is said when a grave and respectable Quaker once pressed dish after dish of meats upon him at supper, on a steamboat, and finally offered something for which Booth had a special abhorrence, he fixed his deep eyes on the Quaker, and said, with profound earnestness, "Friend! I only indulge in one kind of flesh—human flesh!—that I take raw!"

Once, in Boston, after a long scriptural argument against the use of animal food, and the reading of the *Ancient Mariner* to the Rev. Mr. Clarke, he exhibited a bushel of wild pigeons on a sheet, which he asked to have buried in the cemetery, to testify in a public way against man's barbarity. Upon refusal, a day or two after, he actually placed them in a coffin and conveyed them to a lot he had purchased in another cemetery, with all the solemnities of a funeral. Yet, he was acting every night in his usual marvellous style. Finally, the actors everywhere grew afraid of him. Terribly in earnest on the stage, when he passed off he sat behind the scenes, looking sternly at the ground, and speaking to no one.

He would often disappear when in no manner

intoxicated, but his family avoided questioning, and respected the sanctity of his struggles and his seasons of darkness. With him certain colours and metals were sacred for certain days. Strange as it seems to some, this world-renowned actor was a good man, humble and devout before his Maker, and his last words were "Pray! Pray! Pray!"

All these illustrious victims of disease, save the last, are those of children of the old world. There are reasons why it may not become me to dwell upon the infirmities of our own countrymen—from James Otis, the revolutionary patriot, to Horace Greeley, the late candidate for the highest position in the gift of the American people.

Reviewing this mighty mass of human misery, we see everywhere a degenerate ancestry, or gross physical habits, or overwhelming labors thrown upon a young and tender brain. Some fall at the first onset; others bravely resist, and manage to secure all that life can give. Yet again and again we have seen the immortal mind rising above the trammels of the body to assert its kinship with Divinity.

The lesson is one of the greatest of the hour to us as a people.

The late war has not left us all its legacies —the next generation will bear its cruel stamp. Excess, in all its forms, is a national sin; in eating and drinking, in gambling and extravagance, in the rush of social emulation, and the mad excitement of wealth and ambition. Men are dropping around us every day, with paralysis and apoplexy. Hundreds are yearly added to the rolls of the insane, whose families are ruined, their wives broken-hearted, their children thrown as waifs on the tossing sea of destiny.

Let us take comfort that science can do so much to heal the wounds of the brain, and break down the barriers between the mind and body. The venerable Dr. Chipley utters these words of consolation and hope:

"There is in fact a power in man to prevent or control insanity, and it fails chiefly when it has been misdirected in the earlier periods of life. This power is rarely efficient unless it has been developed and strengthened by education; and hence the poor and unschooled are the greatest sufferers from the most terrible of all human afflictions. For example, the educated and the uninstructed are alike the subjects of illusions; but the trained mind of one will recognize their true character, and adopt suitable measures to correct the morbid condition on which they depend; while the other, unable to reason, will accept them as real. The illusions may be precisely the same, yet the one subject is sane and the other insane. The difference is in the organ of self-control. Vagaries intrude themselves upon all minds, but the man of self-control represses them, and seeks fresh impressions from without: the weak man yields to them, and is lost."

Let our children be brought up in sound and healthful habits of mind and body. Let us rein in the passions that would enslave us. Let us not flee the wretched lunatic as one accursed of God, the object of curiosity or of horror; but rather enfold him in the arms of a charity and a sweet compassion, whose great Exemplar did not disdain to "heal the sick." —*Virginia Med. Monthly.*

Consultation or Co-operation with Homœopaths. —*To the Editor of the Lancet.*—Sir,—With reference to the question as to how far a surgeon may co-operate with a homœopathic practitioner in a case of emergency, I think an incident which occurred to myself may afford an answer. Some time ago an old friend of mine, who had been originally in our own ranks, and had latterly been converted to homœopathy, called on me for the purpose of performing an operation for strangulated hernia upon one of his patients. I informed him that I could not meet him in consultation, but as the case was urgent I would give my services. I drove with him to the house, and suggested that he had better inform the patient as to the position of affairs, and then allow me to go up stairs and do what was necessary. To this suggestion my friend acceded at once, and whilst I was examining the patient he remained below. I found that an operation was not required, and I took my departure. Had an operation been needful I should have performed it at once, and certainly should not have objected to the presence of the practitioner in such urgency, but I should have insisted upon the whole conduct of the case subsequently.—I am, &c., Henry Smith, Wimpole Street.

Therapeutic Memoranda.

PAPERS ON THERAPEUTICS.

BY W. HANDSEL GRIFFITHS, PH.D., F.C.S., L.R.C.P.E.,

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ACIDUM SALICYLICUM, SALICINUM, ETC.

Since the publication of Prof. Kolbe's paper in the *Archiv. der Pharmacie*, Vol. 5, the action and uses of salicin and its congeners have attracted considerable interest.

Topically the acid has been applied by Prof. Thiersch to destroy the fœtid odour of cancerous surfaces; he recommends it to be applied in the form of a powder, either alone or mixed with starch. Wenter extols the use of salicylic acid in the treatment of recent or chronic ulcers, and Dr. Wagner treats superficial gangrenous sores by applying to their surface a thin layer of the powdered acid and covering it with wadding—a week generally suffices to effect a cure.

Wagner claims for the acid extraordinary efficacy in eczema of the head and face accompanied by discharge. Dr. Ogilvie Will recommends in this affection the application of an ointment consisting of half-a-drachm or a drachm of the acid to seven drachms of simple ointment; he applies the same ointment to burns.

A solution of one part of the acid and three parts of phosphate of soda in fifty parts of water will be found useful for promoting the healing of granulating surfaces. Solutions for direct application to wounds should not exceed the strength of 5 per cent. of acid.

Salicylic acid is astringent, but if it be desired to utilise its property in this respect the iron salt, as suggested by Mr. Robert Kirk, of Edinburgh, should be employed.

A curious herpetic eruption frequently follows the external application of salicylic acid, as Mr. Callender pointed out, and Mr. Cavafy has recorded a case in which this eruption followed the internal administration of salicylate of soda.

As an antiseptic the following advantages are claimed by Dr. Squibb for salicylic acid over other members of the class:

1. It is more powerful and effective.
2. It is devoid of irritant properties.
3. It is as effective against chemical as against vital ferments.
4. It is odourless, almost tasteless and harmless.

From Godeffroy's experiments it would appear that salicylic acid is three times more powerful in its anti-fermentative action than carbolic acid.

Opinion as to the value of salicylic acid as an antiseptic is by no means unanimous, Callender considering it inferior to other antiseptics, and Salkouski regarding benzoic as being superior to it.

As a disinfectant in the treatment of contagious diseases the acid has been used by several practitioners, notably by Prof. Friedberger, Dr. Zurn, Fortheim, &c.

Kolbe states that salicylic acid can act as a disinfectant and antiseptic only when in the *free* state.

Many formulæ have been proposed for the internal administration of salicylic acid. The following is the mode of giving it recommended by Dr. George F. Duffey,—

℞ Acid salicylic, grs. 120;
Liq. ammon. acet. (B.P.), ʒij.;
Aquæ, ad ʒvj. *m*

Give one-eighth part (gr. xv. of the acid) every hour.

Mr. P. A. Young states that he uses acetate of potash as a solvent for the acid, and that the addition of aqua carui to the solution forms a palatable mixture. Two parts of the acid are freely soluble in water on the addition of three parts of acetate of potash or four parts of citrate of potash. The solution in acetate of potash does not give off vapour of acetic acid on boiling, and free salicylic acid may be extracted from it by sulphuric ether, hence probably no decomposition takes place.

The following formula appeared in *New Remedies*, July, 1876,—

℞ Acid salicylic, ʒj.;
Pot. acetatis, ʒj.;
Glycerini, ʒj.;
Aquæ, q.s. ad ʒj.

This solution contains one grain of the acid in eight minims; it may be made much stronger.

Other acetates, as of lime, soda or ammonia, are also applicable as solvents.

M. Cassan suggests the following recipe,—

℞ Acid salicylic, ʒj. ;
Ammoniæ citratis, ʒss. ;
Spt. vin. gall., ℥j. ;
Aquæ dest., ℥v.

The citrate of ammonia does not impart an unpleasant taste to the mixture.

Mr. Erskine Stuart suggests its administration in combination with bicarbonate of soda—

℞ Acid salicylic ;
Pot. bicarb., āā ʒiij. ;
Aquæ, ad ℥vj.

A tablespoonful every two hours. It should be freshly prepared, as it speedily becomes putrid on exposure. Thus administered he has not known it to affect the throat.

Riess and Fergus suggest the solution of the acid in spirit of wine, and the addition of glycerine to about half the bulk of the mixture ; a drachm of concentrated aqua carui removes all disagrèeable taste. It is stated that the acid so administered does not cause burning of the throat.

Mr. C. L. Mitchell gives the following recipe for a concentrated solution of the acid,—

℞ Acid salicylic, ʒij. ;
Sodæ biborat., ʒj. ,
Glycerini, q.s.

Mix the acid and borax with four drachms of the glycerine, heat gently until solution is effected, then add glycerine to make the measure ℥j. This solution contains 25 per cent. of acid.

According to Mr. Charles Becker borax in the proportion of two parts to one part of the acid and fifty parts of water precipitates slightly after twenty-four hours ; a solution of one part each of acid and borax in five of glycerine and twenty-five of water is permanent, while the same proportion of borax, acid, and glycerine in fifty parts of water will precipitate in twenty-four hours. A solution of one part of acid to two of borax in twelve of glycerine made with heat is permanent, but when one part of this solution is diluted with three of water a cloudiness appears in three hours.

Bose states that two parts of the acid are rendered soluble in 100 parts of water by the acid of borax.

Wunderlick gives the acid in almond emulsion with syrup of almonds and orange flower water. Martenson suggests the employment of salicylate of ammonia as a substitute for the acid on account of the solubility and sweet taste of the former. Schofield finds that patients take salicine best in milk. Subcutaneous injections of salicylic acid should be made with perfectly neutral solutions.

In cases of diarrhœa and dysentery in which all other remedies failed, Stephanides succeeded in effecting a cure with salicylic acid. In the latter disease 30 grains should be given daily.

Justi found salicylate of soda of use in the gastric catarrh of children, and Wagner claims for the acid considerable efficacy in cases in which fermentative changes occur in the contents of the alimentary canal.

Moelé states that salicylic acid sometimes induces sickness and vomiting, and under such circumstances he advises its administration by enema. Erskine Stuart states that even after a dose of two scruples he never experienced any inconvenience of the stomach.

Salicylic acid unquestionably excites a specific catarrh of the mucous membrane of nose, pharnyx, and mouth, and this even if administered by the rectum. It is possible that a tolerance of salicylic acid may be established. It is undoubtedly cumulative, for it has been found that after a dose of from four to eight grains half or a-quarter of that dose on the following day will keep down the temperature. According to Ranke, Lehman, and others, salicylic acid is converted into salicine in the blood. Kohler, however, believes that it is converted into the soda salt. Senator, on the other hand, thinks that salicine acts by being converted into salicylic acid in the system.

Butt of St. Gall, Fürbringer of Heidelberg, and Buss of Basle were among the first to indicate the anti-pyretic action of salicylic acid. Justi considers that its anti-febrile action attains its maximum six hours after its administration, and that it then gradually diminishes. According to Kohler the soda salt diminishes the temperature both in health and disease. It has been observed that on the administration of salicylic acid the temperature at first rises

for a short time. The fall in temperature is not so noticeable when the drug is given by enema. According to M. Sée salicylic acid is inferior to digitalis and quinine as an anti-pyretic, the diminution of the temperature being less marked and less constant. Dr. Balthazar Foster records a case in which salicine failed to materially lower the temperature or to shorten the disease. Salicylic acid is generally stated to diminish the pulse rate. Ewald, however, states that it does not affect the pulse at all, while Riess and Goltdammer affirm that it makes the pulse stronger, but does not diminish its frequency. Nathan, who gave the drug in much larger doses than the latter observer, considers that it does lessen the pulse-rate and reduces the respirations.

As an anti-pyretic in the treatment of acute rheumatism, salicin and its congeners have of late attracted considerable attention, and there is great unanimity of opinion as regards their great efficacy in this disease. There is, however, much diversity of opinion as regards the relative value of saciline, salicylic acid, and salicylate of soda. Now, if salicylic acid acts by being converted into salicine in the blood, the latter, on theoretical grounds, would be preferable as being more direct in its action, and there are many, especially Dr. Maclagan, who claim for salicine considerable advantages. If, on the other hand, the salicylic acid is converted in the blood into the soda salt the latter should be selected. Senator, as has been mentioned, thinks that salicine acts by being converted into salicylic acid in the system, and if this view be correct the advocates of the acid, among whom are Sir W. Jenner and a host of others, are justified in their choice.

It is a curious circumstance that decoction of willow-bark, of which salicine is the active principle, has long been known to the Hottentots of South Africa as a remedy for acute rheumatism. To Dr. Maclagan belongs the credit of being the first to suggest salicine in the treatment of acute rheumatism; he states that the best way to get the full and speedy benefit of the drug is to saturate the system with it as quickly as possible. To adults he gives from 20 to 30 grains every two hours, and in very acute cases he gives that quantity hourly until the pain is relieved. His experience is, that cases of rheumatism treated with it convalesce rapidly. He thinks it prevents cardiac complications and stays their progress when they have commenced, but its beneficial action ceases when the temperature falls to normal. Its advantage over the acid is that it is an excellent bitter tonic, and never causes troublesome symptoms, except in some rare cases mild tinnitus aurium. Salicin is doubtless less liable to adulteration than salicylic acid, it may be taken in small doses and it has a more agreeable taste. In acute rheumatism Stricker gives from 20 to 30 grains of the acid every hour for six doses. The acid has innumerable advocates; some few cases are, however, recorded in which the acid produced serious toxic symptoms. Mr. Tuckwell, especially, has put on record two cases in which alarming symptoms were produced by the acid; these we will allude to hereafter. Evidence in favour of salicylic acid as a remedy in acute rheumatism is so overwhelming, that the isolated cases in which it proved injurious can only be explained by assuming an idiosyncrasy on the part of the patient, or by attributing it to the existence of certain impurities—as of carbolic acid, an impurity which I have frequently detected in commercial varieties of salicylic acid.

Mr. G. Parker May has given salicine in endocarditis with a successful result. The drug was given in scruple doses in a mixture of glycerine water every four hours. Other observers have not noticed that salicine or the acid exercise any beneficial effect on cardiac complications.

On account of the toxic symptoms and collapse which occassionally follow the use of salicin and its congeners, they should be cautiously used in weak states of the heart and in exhaustion. In typhoid fever Riess has given salicylic acid successfully; he uses the following formula—

℞ Acid salicylic;
Sodæ carb., āā ʒij.;
Tinct. aurant, ʒj.;
Aquæ. ʒiss. M.

For one daily dose.

Moelé has also given it with advantage in typhoid fever. M. Leven, however, affirms that it is powerless in small doses, and that in large doses it causes dangerous derangement of the digestive system.

According to M. Robin salicylic acid diminishes the quantity of urine and increases the indican in typhoid fever, and hence very dilute solutions should be given. Lepine finds that the acid is very slightly excreted in typhoid.

Salicylic acid has been recommended as an anti-pyretic in erysipelas, but further experience of its value iu this disease is needed.

According to Hiller, Riess, Senator, Weber, and others, salicylic acid and salicine are inferior to quinine in the treatment of ague, it is probable, however, that the salicylate of quinine will be found a remedial agent of extreme value in the treatment of intermittent fever.

The efficacy of salicylic acid in the treatment of scarlatina has been lauded by Drs. F. Weber, Julius Steinitz, and others, but Dr. Brakenridge in his cases found that the reduction of temperature and of pulse-rate was very temporary, and that the duration of the fever was evidently rather lengthened than shortened by this treatment. Langfeldt, Fortheim, and others, have successfully treated diphtheria by salicylic acid. Erskine Stuart regards the fact that the drug produces a specific catarrh of the mucous membrane of the mouth and pharynx as being a significant fact with reference to its utility in this disease. The following is the prescription of Harrow—

℞ Acid salicylic, 1 part;
Sodæ phosphat., 1 part;
Aquæ, 300 parts.

Of this a tablespoonful is the dose for adults, a teaspoonful the dose for children.

Wagner recommends a gargle consisting of salicylic acid 150 parts, alcohol 15 parts, and distilled water 150 parts. This should be used every two hours.

For offensive breath Dr. Da Costa gives three times daily five grains of salicylic acid dissolved in a drachm of glycerine and half-an-ounce of water.

Drs. Ohisholm and E. H. Jackson treat otorrhœa with salicylic acid. The ear is first thoroughly cleansed, a speculum is adjusted, and 2 grains of salicine or salicylic acid with 4 grains of calcined magnesia or oxide of zinc are blown into the ear through a quill. The process should be repeated every two or three days.

Bezold states that in aural diseases the acid is valuable as a parasiticide, and that it rapidly destroys oto-mycoses. He states that injections of the acid produce cicatrisation of the membrana tympani when perforated, and he employs alcoholic injections of the acid in acute or chronic suppurative inflammation.

M. S. Hoffman speaks highly of the use of salicylic acid in sciatica, tic doloureux, intercostal neuralgia, and for the relief of pain in gout. In the latter affection it has also been successfully used by M. C. Kunze. Dr. Bode has found it of use to relieve the pain of mastitis.

Thiersch finds that when salicylic acid is applied to wounds it almost immediately appears in the urine.

Ebstein, of Göttingen, first suggested the use of salicylate of soda in diabetes. Dr. Müller-Warnck, of Kiel, has lately treated two cases with this drug, and draws the following conclusions from his observations:—Salicylate of soda can completely remove the symptoms of diabetes mellitus, but its action is not always permanent. The symptoms disappear more rapidly the larger the dose that is administered, and the longer it is continued. In moderate daily doses (9 to 10 grammes), its initial influence on the diabetic process appears to become gradually exhausted, whereas large daily doses (14 to 16 grammes) exert an increasingly powerful effect on it. The drug may be administered in large daily doses for a long period without any special disturbance of the general health, but any symptoms of poisoning which may appear rapidly subside on discontinuing its administration. Salicylate of soda but slightly irritates the kidneys in diabetes even after prolonged use.

Salicylic acid has been recommended in chronic cystitis. In large doses salicylic acid provokes diaphoresis.

Dr. Boyland uses injection of salicylic acid in venereal disease. In the inflammatory stages the injections have the strength of 1 in 200, and in the latter stages 1 in 100.

The following were the toxic symptoms which characterised Mr. Tuckwell's cases, to which allusion has been made. Humming and buzzing in the ears, with gradually increasing deafness; a peculiarly loud, deep, sighing respiration; a restlessness gradually increasing to delirium, not unlike that of delirium tremens, with involuntary evacuation of urine and fæces in one of the cases; a slow labouring pulse, and an olive-green colour of the urine.

Prof. Abelin is of opinion that young children are peculiarly susceptible to the action of salicylic acid, it being liable to produce great depression. Dr. A. M. Weir has published a case illustrative of the sleeplessness and disturbed state of nervous system following the prolonged use of salicylic acid.—*Med. Press and Circular.*

HYPODERMIC ALIMENTATION.

Dr. Whittaker (*Clinic*, Jan. 22, 1876) reports a case of gastric ulcer, in which all ordinary modes of alimentation failed. He then gave hypodermic injections of milk, alternated with beef extract, every two hours. This treatment was continued for four days, the patient taking no food by mouth or rectum. Under it the temperature declined, the pulse became fuller and stronger, and the delirium and pain disappeared. Cod liver oil was now substituted for milk, and continued for three days longer. From this time the patient could take food by the stomach, and wholly recovered. In the progress of the case sixty-eight injections of cod liver oil were made. One day as much as four ounces of cod liver oil was introduced in eight injections.

Two small abscesses were formed from the milk—none from cod liver oil.

Dr. Krueg (*Wiener Med. Woch.*, Aug., 1875) reports a case of a lunatic, in which all other attempts at feeding being frustrated, he began the hypodermic injection of olive oil. The experiment lasted two months. The longest time of sustenance by hypodermic alimentation alone, was twenty days. The patient at last, finding he could not starve himself, consented to take food by the mouth.—*Detroit Medical Journal.*

Extemporaneous Pill-Coating.

The pills, made of a hard mass and well rounded on a smooth surface in the usual way, are moistened with simple syrup, diluted with one-fourth the quantity of water, and then rolled about with the outspread fingers in a comparatively large quantity of finely powdered elm bark.—H. Hildebrand, in *Chicago Pharmacist.*

Tooth Powder.

The following was originally recommended by the celebrated John Hunter:

Powdered cream of tartar.....	3 ounces.
Powdered alum	4½ drachms.
Powdered cochineal.....	4 "
Powdered cinnamon.....	½ drachm.
Powdered sugar	1 ounce.

—*Druggists' Circular.*

Ointment for Piles.

Powdered opium.....	30 grains.
Tannin.....	1 drachm.
Carbolic acid	15 drops.
Oil of tobacco	10 "
Solution of subacetate of lead...	20 "
Simple ointment.....	1 ounce.

Mix intimately. To be used morning and night.

Pruritus Vulvæ.

℞ Hydrarg. perchlorid.....	1	part.
Alum.....	20	"
Starch.....	100	"
Aq.....	2500	"

M ft. lotio.

For Tape Worm.

Pumpkin seed.....	1	ounce.
Pomegranate bark.....	½	"
Ethereal ext. of male fern...	1	drachm.
Powdered ergot.....	½	"
Gum arabic.....	2	"
Croton oil.....	2	drops.

Bruise the pumpkin seed and pomegranate bark and ergot well, and boil in water 8 ozs. for fifteen minutes. Strain. Rub up the croton oil with the gum arabic, ergot and male fern, and mix with the decoction. To be taken in the morning fasting.

BROWN-SEQUARD NEURALGIC PILL.

Ext. Belladonna	2	grains
" Stramonium	2½	"
" Cannabis Ind	3	"
" Aconite	4	"
" Opii	6	"
" Hyoscyam	9	"
" Conium	12	"
" Powdered liquorice, q.s.		"

Mft. pil. 12.

LINIMENT OF IODIDE OF AMMONIA.

Iodine	gr. xv.
Alcohol	ʒ viii.
Camphor	ʒ ii.
Ol. Lavender.	
" Rosemary ää	ʒi.
Water of ammonia	ʒi.

ANÆSTHETIC COLLODION FOR SUPERFICIAL NEURALGIAS.

Hydrure d'Amyle	30	grammes.
Collodion	30	"
Aconitine	0 05	centigrammes.
Veratrine	0 30	"

—*Bordeaux Medical.*

Iron in effervescence in cases of granular kidney with gastric irritability :

℞ Ferri citratis ʒiss ; Acidi citrici ʒvi ; Aquæ Dest. ad. ʒvi. *m*

Et ℞ Acidi Hydrocyanici Diluti *m* lxxii ; Potassæ Bicarbonatis ʒvi ; Liquoris Bismuthi, Syrup Aurantii, sing. ʒiii. *m.*

Sig. A dessertspoonful of the contents of each bottle in a glass of water thrice daily.

BROMINE ACNE.—This was produced in a girl, aged eighteen, by using half a drachm of bromide of ammonium twice a day to check her epileptic fits. The following lotion almost completely removed them during the continuance of the bromide mixture :

℞ Sulphuris præcip	ʒiii.	
Spirits camp	ʒi.	
Aq. calcis ad	ʒiii.	*m.*

Dr. Owen, in *Med. and Surg. Reporter*, speaks very highly of the use of *hot* water in sick stomach. He uses about a half a glassful at a time, repeating if necessary.

CASCA BARK.—This is the "ordeal poison" of West Africa. Dr. T. L. Brunton says of it, in a recent lecture—"In Casca we possess a drug which strengthens and slows the heart, contracts the arterioles, and increases the urine. Digitalis has hitherto been our great resort in mitral disease, but I think it probable that in casca we possess a drug more powerful still ; at least its effect upon the arterioles appears to be greater than that of digitalis, and it is quite possible that it may succeed in those cases of advanced mitral disease where digitalis fails."—*Reporter.*

Extension in fracture of the leg is made by Dr. S. W. Gross (*N. Y. Record*) in the following manner : The foot is well bandaged. A shingle is then cut to fit the shape of the sole and fastened to the foot by adhesive plaster. The weight is attached to a cord fastened to this foot-piece.

Gonorrhœa is treated by the same gentleman (*Ibid*) by means of cubebs, administered in tablespoonful doses, in water, four times a day. "Most wonderful results are said to be obtained."

For Dysmennorrhœa, Dr. Jenks, of Detroit, advises the use of the fluid extract of viburnum prunifolium, in half drachm or drachm doses every two or three hours during the menstrual period. He also recommends its use in threatened abortion.—*Exchange.*

INTERNATIONAL MEDICAL CONGRESS OF GENEVA.—The fifth International Congress of Medical Science will be held in Geneva from the 9th of September to the 15th, under the presidency of Professor C. Vogt. Papers are beginning to be received in the different sections from some of the most eminent physicians and surgeons on the Continent. The section of Biology promises to be specially interesting and valuable in contributions.

Dr. Balfour has resigned the office of Dean of the Medical Faculty in the University of Edinburgh.

Translations.

At a meeting of "Société de Biologie," M M. Jolyet and Laport (stated that they) had determined the quantity of hæmoglobin that the blood contains before and after its entrance into muscle: the arterial blood is always a little richer than the venous blood: after section of the nerves, this difference no longer exists; on the other hand, it is augmented after stimulation of the nerves.

Means of Preventing the Blurring of Mirrors Designed for Exploration.

From *L'Union Médicale Du Canada.*

This means consists in passing lightly over the polished surface of the mirror a rag saturated with glycerine. The vapour of water contained in the expired air is completely dissolved in the glycerine, and the blur does not form. This means is, in fact, more practical than that of plunging the mirror into tepid water, or of heating it at the flame of a lamp. — *Lyon Médicale.*

Radical Cure of Ingrowing Toe-Nail.

BY DR. FR. RAMIREZ VAS.

The author employs Liq.-Ferri perchloridi, applied by means of lint soaked in it. After some days of this dressing, he applies solid perchloride of iron between the nail and the dorsal surface of the toe. This treatment lasts from a few days to two months. Dr. Ramirez Vas states that patients once cured remain exempt from relapses.—(*El. Siglo-Medico.*) —*L'Union Medicale du Canada.*

From *Le Progrès Médical.*

In the numbers of *Le Progrès Médical* for April and May certain lectures on the "Mechanism and Pathological Physiology of Modifications of Intracardiac Organic Murmurs,—By Cuffer," have been reported, of which we subjoin the conclusions :—

1. All intracardiac murmurs, whatever they may be, are modified when the patient passes from the horizontal to the vertical position.

2. They are all diminished in the upright posture.

3. The vertical position lessens the bruit by causing, on the one hand, a change in the shape of the heart, and on the other, by producing variations in the arterial tension, in consequence of which the number and force of the cardiac contractions are altered.

4. All bruits are intensified in the horizontal posture; indeed, certain murmurs are produced only in this attitude.

5. Inspiration causes an augmentation of cardiac souffles.

From *Le Progrès Médical.*

Among the presentations made by M. Hugonneau (candidature au tibre de membre correspondant de la Société Anatomique), I shall especially direct attention to a case of cystosarcoma of the perineum in a fœtus. This tumour, of the size of an adult head, was implanted upon the perineum and the internal face of the thighs. The anal orifice was found in the region of its (the tumour's) point of implantation and on its posterior aspect. Covered by the skin, and traversed by tolerably large veins, it gave to the touch the sensation of a false fluctuation.

In making a section of this tumour it was seen that it consisted of a large pouch filled with sero-sanguinolent fluid, very rich in albumen. The walls, formed by a tissue of lardaceous appearance, contained in their thickness little cavities filled with a puriform liquid which, under the microscope, presented the characters of embryonic tissue. No communication with the rachidian canal existed. The swellings projecting into the cavity of the tumour were formed by embryonic elements, presenting all the characters of small celled sarcomata. All the normal tissues of the child were there seen in an embryonic state. Delivery by breech, child still-born.

This observation appears to us interesting in view of the small number of similar cases hitherto published. The first two cases were presented by M. Depaul with the diagnosis of cancer. In 1864, Rayer and Ball presented an analogous case to the Biological Society. After a histological examination of the tumour, M. Robin considered it a heterotopy of the ovary. In 1866, M. Bailly published another observation, in which it is stated that the tumour was formed by all of the normal tissues of the child (striped and unstriped muscular tissue, conjunctive, bony and osseous tissues). This observation, joined with that of M. Hugonneau, proves that these tumours closely resemble the sarcomata, and should consequently be regarded as cystosarcomata developed in the embryo.

THE CANADIAN
Journal of Medical Science,
A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor.*

TORONTO, JULY, 1877.

THE UNIVERSITY OF TORONTO AND ITS AFFILIATED INSTITUTIONS.

The recent action of the Government, in abolishing all existing affiliations between the University of Toronto and the different teaching bodies in the country, has been the subject of a good deal of controversy, and is not without its points of interest. On sober reflection, we think no one will be prepared to controvert the statement, that the principle upon which formerly existing affiliations were based was calculated to inflict grave injustice in certain directions, and that the time had fully come when some modification of that principle was necessary. We regard it as a matter for congratulation, in the first place, that the Senate fearlessly grappled with the difficulty and gave the first impulse to the legislation which will, we confidently hope, effect such an adjustment of anomalies formerly in existence as will place all purely teaching bodies on precisely the same footing. It is also a matter for congratulation that, at the recent meeting of Convocation, so unanimous an expression of opinion was offered that double affiliation should be at once and forever abolished. It must be very apparent to any one who has watched at all closely the history of the University, that such a principle as that of double affiliation could only bring disaster to that institution and strengthen the hands of those labouring in the interests of its rivals. We are not going to dispute the right of any one to extend his sympathies to institutions rival in their character to the University, as that would involve the discussion of a very much broader question; but, we do say most unhesitatingly that no measure should be adopted which can only have the effect of building up these rival institutions at the cost of seriously impairing the influence and usefulness of the Provincial University. We take exception, most decidedly, to the assertion, made at the recent meeting of Convocation, that the question whether there are ten, twenty or fifty medical graduates each year is a matter of complete indifference to the University. Such a sentiment as this, coming from a gentleman professing devotion to the welfare of the University, is, to us, a matter of infinite surprise. Will any one pretend to say that an institution established for the purpose of granting degrees in the departments of arts, law, and medicine, and maintained at an enormous cost to the country, should not encourage, in every lawful way, such measures as will carry out these objects to the fullest extent? Surely, no one will soberly say that it is a matter of no consequence whether the graduates in *any* department are many or few. On the contrary, so long as the standard of professional attainments, as well as general culture, is sufficiently elevated, as it is presumed it now is, the greater the number of those prepared to come to that standard and receive their degrees, the wider must necessarily be the circle of influence and usefulness of the University.

It was intimated, in no very delicate or complimentary terms, that the qualifications necessary for attaining to a degree in medicine in Toronto University were of a doubtful character. This, if true, involves a very grave reflection upon the honesty of the authorities of that institution. But we have no hesitation in saying that such an insinuation is utterly groundless, and ought to be repelled as unworthy of any gentleman calling himself a friend of the University. We challenge contradiction when we say, from a personal knowledge both of the standard of attainments required and of those who have been entrusted with the management of the examinations, that the curriculum will compare most favourably with that of any similar institution in existence.

We are prepared to advocate, with all the energy we possess, the elevation of the standard within any reasonable limits. But we would be very sorry to extend our sympathies in the smallest degree to the doctrine that we should not use every legitimate means to bring within the walls of our great Provincial University as many as possible in all the departments in which it professes to offer educational advantages.

We were not a little amused, and no less surprised, at the tactics of the advocates of double affiliation. Their purpose was so transparent as to need but little comment. They have systematically used the University of Toronto, not for any love they bear to it, but for the avowed purpose of advertising another institution and indirectly strengthening a University most strongly antagonistic from the very first day of its existence. Since the day on which the medical department of Trinity College was resuscitated, the friends of that school have adopted every device which could by any means give their favourite school an advantage over rival schools. The students of the Toronto School of Medicine have been almost the only support of the medical department of the University of Toronto in the past. Hence, its friends have a fair right to claim that, thus far at least, they have been the warmest friends of the University. If all schools are willing to comply with the terms laid down, we shall never raise the slightest objection to their affiliation. But if any desire to retain their connection with rival Universities and to enjoy all the privileges of teaching bodies whose undivided allegiance is given to the University of Toronto, they are making an unjust demand, and one which should be resisted in every honourable way.

Ontario Medical Register.—It is high time that the present register should be revised. It is full of errors, and there are many additions to make.

The first annual meeting of the American Dermatological Association will be held at Niagara Falls on the 4th day of September next.

PROPOSED ANATOMY BILL FOR ONTARIO.

This is a Bill framed apparently for the purpose of replenishing the coffers of the Medical Council by making all the medical schools and all private teachers of anatomy or surgery tributary to it.

It cannot facilitate the study of anatomy in any degree, but will make its pursuit vexatious, expensive and difficult; constantly subject to the whim or caprice of the Registrar or President of the Medical Council. It gives the officers of that body a power over the schools as absolute as that of any autocrat.

Although the Medical Council has done some strange things in the past, yet we cannot believe that it would be guilty of so arrogant an attempt to bring the schools into servile subjection as the Bill would indicate, but the author, whosoever he may be, is evidently just the man who would like to be endowed with the power and perquisites established by it.

Furthermore, the Bill places in the hands of the Registrar an amount of power which no one, short of the Government of the country, has a right to ask for, and if the complaints which come to us from the country, about the way in which the duties of the Registrar have hitherto been performed, are in any degree correct, the teachers of anatomy and surgery would not find the success of their labours facilitated by being placed so absolutely under his control. A short paragraph of fifteen or twenty lines extending the operation of the present Anatomy Act to the counties and suburban towns would have met all requirements, but that would have brought no grist to the mill.

We very much mistake the temper of the teachers of anatomy, in Ontario, if they quietly submit to be thus insolently trampled upon, and made to pay a yearly tax for the support of any pets of the Medical Council. If the Council would husband its present receipts, instead of squandering them for the publication of this and kindred documents, there would be less need for these frantic and persistent efforts to bring various classes under tribute. Money appears to be the leading object of the Bill, but in order to obtain it the managers of medical schools and all private teachers of anatomy, who

are quite as capable of judging how to conduct a dissecting room as the Registrar of the Council can be, and who are likewise just as solicitous to not "offend public decency or endanger the public health" as the President of the Council himself, must all be brought under subjection.

We hope, however, that when it comes before the Medical Council at its next meeting the injustice and impropriety of such a Bill will be made manifest to all.

We cannot give more space to the matter this month, but would direct special attention to Sections viii., x., xi., xii. and xv.

Of these, sections xi. and xii., may be called red letter sections.

Thus section xi. authorizes the Registrar to "keep a record of the names and designations of the several schools of anatomy and surgery in the Province of Ontario, and of the number of students engaged in the study of anatomy and surgery at each * * * * and to demand from each school *such fee annually* as the Council may establish." * * *

We do not see what benefit the above section will confer upon the schools that they should be thus taxed annually to pay the Council for work done by their own secretaries.

Section xii. says, "The Council shall establish such regulations as may be considered necessary for the management of the dissecting room of every school of medicine desirous of benefitting by the provisions of this Act; and the Conncil may amend the same from time to time, as may be deemed expedient." The Registrar is authorized to visit and inspect, whenever he deems it expedient, the several dissecting rooms deriving benefit from the Act, and to enforce compliance with the regulations of the Council, &c., &c.

If we are to judge by past legislation of the Council, it would find it *expedient* to amend its regulations pretty often, and the present inspector of anatomy has all the power which such an officer should possess for purposes of inspection, and, moreover, exercises it without offence.

The Ontario Medical Council meets on July 3rd in the County Council Chamber, Toronto.

CANADIAN QUALIFICATIONS IN ENGLAND.

It will be gratifying to Canadian practitioners to read the following report of the Medical Acts Committee of the General Medical Council of Great Britain :—

"The Committee is of opinion that qualifications, granted under legal authority in any part of Her Majesty's dominions, ought to be regarded by the Council as presumptively entitled to legal recognition in the Mother Country. It is true that the Council would be unable in general to judge the value of those qualifications as accurately as it can judge those for which the Medical Act holds it directly responsible. But the Committee is of opinion that sufficient allowance for this consideration would be made by providing that in the register there should be a distinct alphabetical section for practitioners registered in the United Kingdom in respect of qualifications conferred in the other parts of Her Majesty's Empire."

"It is the opinion of the Committee that the Council should recommend Her Majesty's Government to promote at the earliest opportunity legislation to the above effect. But if it should seem that such legislation, as perhaps opening some large questions under the Medical Act, could not at once be provided, the Committee would recommend that meanwhile at least the urgent grievance of the Canadian practitioners should be removed by the required small amendment of the Merchants' Shipping Acts." This was adopted by the Council, though some of the members objected to the names being entered in a separate register. Of course no legislation will be promoted by the British Government to the above effect, unless it is underderstood that the Ontario Medical Council are willing to grant reciprocity by the power given them under the Medical Act as amended. We have no doubt that they will readily do so. As the only qualification granted "under legal authority," entitling to practice in Ontario, is that of the College of Physicians and Surgeons of Ontario, we presume that graduates of our universities, unless registered in Ontario, cannot claim registration in England under the new regulations, while graduates of McGill College, for instance, will be entitled to such privilege. This is hardly fair to Ontario graduates, and doubtless would not have occurred had the Medical Acts Committee been aware of the fact that the whole Dominion is not governed by the same medical legislation.

UNIVERSITY OF TORONTO CONVOCATION.

A meeting of the members of convocation was held at the Canadian Institute, on Thursday evening, June 7th. There were over seventy present. Mr. Moss was re-elected chairman for the ensuing term of three years. A committee, consisting of the Vice-Chancellor, Prof. Loudon, Dr. Ellis, Dr. Reeve, H. J. Scott, Rev. Mr. McWilliams, Messrs. T. W. Taylor, Rattray, Fitzgerald, and McWilliams, was appointed to draw up rules for the governance of convocation, to report at the next meeting, to be held the first Friday in October.

W. Pearman M.A. (Cantab) was elected a member of convocation.

Dr. Robertson moved, seconded by Dr. Fulton, "That this meeting recommends unrestricted affiliation of medical schools as that which will be most conducive to the interests of the University." Lost.

Mr. Thom moved, seconded by Mr. Delamere, "That it is not in the interest of the University that any medical college be granted affiliation." Lost.

After a lively discussion the following resolution, proposed by Mr. Fisher, seconded by Mr. Taylor, was carried by a large majority, "That in the opinion of convocation it is desirable, under reasonable restrictions and conditions, to encourage the affiliation of medical schools in Ontario with the University of Toronto, but that it would be manifestly unjust to permit the affiliation of any College which is already affiliated with any other university."

Personal.—Dr. William Osler, Professor of Institutes of Medicine, in McGill University, was recently the recipient of a complimentary address and a purse of $100, to aid him in scientific research. The address expressed the esteem in which he was held by his colleagues and students.

We have to thank Dr. Pyne, the Registrar, for the kind and courteous manner in which he has acted whenever applied to for information or assistance.

MEDICAL SCHOOL AND JOURNAL MANIA.

One of our cotemporaries is severely exercised by the undue multiplication of medical schools and journals, forgetting altogether what Darwin says about the "survival of the fittest." He likewise deprecates the appointment of "mere boys" as professors in the medical schools of Canada, and doubtless knows whereof he speaks. We also have known a case in which a "mere boy" not only accepted a professorship, but *even* compiled a book on one of the most abstruse subjects in medical science before he had won his spurs. But we were told by a late eminent lecturer, with whom the writer must have been familiar, that Canadian students were so much more intelligent than European, that they could graduate in about half the time, and doubtless he found the same precocity in regard to their qualification for professorships.

As two medical schools in which *our boy* has taken part have come to an untimely end, we think the folly of these youthful appointments so thoroughly demonstrated that the evil is not likely to spread. We must remember, however, that age does not always give discretion, nor grey hairs wisdom.

Canadian Institute of Homœopathy.—A meeting of homœopathic physicians was held at the Tecumseth House, London, Ont., on the 30th inst., when the above-named institute was duly organized. Dr. G. C. Field, of Woodstock, was elected President, Dr. L. Luton, of St. Thomas, Vice-President, and Dr. J. Adams, of Toronto, Secretary and Treasurer. At a subsequent meeting, in the evening, several interesting papers were read and discussed.

BOOK NOTICES.

A Case of Abdominal Pregnancy Treated by Laparotomy. By T. Gaillard Thomas, M.D. Reprinted from Gynecological Transactions.

The Prophylactical Treatment of Placenta Previa. By T. Gaillard Thomas, M.D. Reprinted from the *American Practitioner.*

Miscellaneous.

CANADIANS IN ENGLAND.—Duncan Frazer, M.B., of Shakespere, has been admitted member of the Royal College of Surgeons.

The wife of John Heffner, of Reading, Pennsylvania, has lately presented her husband with their forty-fifth child; so says a paper called *Truth for the People.*

UNIVERSITY OF TORONTO.—The Annual Dinner took place in the dining hall of the College residence, on June 8th, and was as usual a great success. Among the guests present were Archbishop Lynch, Sir John A. Macdonald, Chief Justice Harrison, Hon. Dr. Tupper and Hon. M. C. Cameron.

We understand that Mr. Ellis, the veteran Professor of Anatomy at University College, whose labours and published writings on descriptive anatomy have long been of the highest standard of estimation, has sent in his resignation.

Mr. Lister has accepted the Chair of Clinical Surgery at King's College Hospital, London. Arrangements have been made to afford Mr. Lister full opportunities of carrying out his system of clinical teaching and of practising antiseptic surgery. He is to have wards of his own, and his own house surgeon and dressers.

The St. Petersburg *Medical Gazette* states that, in a village in the Government of Novgorod, a woman, aged 20, a primipara, was delivered of a healthy, full-grown female child on January 30th, and three days later of a healthy male. In the interval, she had performed her household duties.

TREATMENT OF ACNE ROSACEA.—Neumann (*Allgem. Wiener Mediz. Zeitung*, No. 37, 1876) has found excellent results from brushing the affected skin with a solution of one part of carbolic acid in three or four parts of alcohol. The application is made three times a week, and produces no cicatrix. The treatment is not applicable when there is much thickening and œdema.—*London Med. Gazette.*

CURE OF POPLITEAL ANEURISM BY ESMARCH'S BANDAGE.—In the London *Lancet* of January 20th, the results of three cases of aneurism, treated by Esmarch's banadge, are given. The duration of the treatment was fifty, fifty, and sixty minutes, respectively, a compression being placed on the femoral artery for a few hours afterward, as a precaution. The result in each case was satisfactory in every respect, showing that the sac of an aneurism can be as effectually occluded by a rapidly formed blood clot as by a slowly formed, laminated clot. As one hour appears sufficient to complete the operation, it could be easily rendered painless by the use of ether or chloroform. The bandage is applied tightly from the foot to the lower border of the popliteal space, then lightly, without compression, over the sac (a thin layer of cotton-wool intervening), and then continued tightly to within three or four inches of Poupart's ligament. In the *Lancet* of February 2nd, a fourth successful case is reported.

ON SPRAIN OF THE "MEDIO-TARSAL" ARTICULATION.—The Edinburgh *Medical Journal* says:—Dr. Terrillon having carefully studied several cases of sprain of the foot, has noticed that while sprain of the "tibio-tarsal" joint is the most common and serious injury, sprain of the "medio-tarsal" articulation does occur. The latter may be alone or combined with the former; in the one case it is apt to be mistaken for the former injury, and in the other case to be overlooked.

Dr. Terrillon considers that neglect of this sprain often is the cause of persistent pain, and may also be the exciting cause of disease of the tarsus. He has accordingly favoured the profession with his monograph on the subject. He describes the sprain as being produced when the posterior-half of the foot is fixed, and the anterior portion forcibly adducted or abducted. The symptoms are those of sprains in general. The treatment recommended is the employment of the cold douche, "methodical and continuous rubbing," and a flannel bandage at the first. Painting with iodine is to be employed should pain persist.—*Medical and Surgical Reporter.*

Hint on Removing Foreign Bodies from the Eye.—Prof. Dugas, of the Atlanta Medical College, says, in the New Orleans *Medical and Surgical Journal*, March, 1877 :—It is extremely difficult for the surgeon, as well as painful to the patient, to dislodge the foreign body while the eye is instinctively avoiding every approach of the instrument. In order to surmount this difficulty, I have for many years been in the habit of placing the end of my index finger upon the eye just within the canthus, and retaining it there until I have removed the object. The contact of the finger produces a sensation which, while not decidedly painful, is yet sufficiently decided to engross the attention of the patient, and to prevent his moving his eye at the approach of the instrument or on its contact with the ocular surface. By this plan the foreign bodies may be removed from the surface of the eye as readily as from any other part, and without the risk of scratching or otherwise injuring the organ by repeated and unsuccessful attempts to take it by surprise, if I may use the expression, by sudden thrusts of the instrument used for the purpose. I am in the habit of using Scarpa's cataract needle, and find it better adapted to the purpose than any other instrument, whether the mote be imbedded or in simple contact.

Resistance to Starvation.—The catastrophe at Pont-y-pridd Colliery has drawn attention to the length of time during which life may be prolonged in the absence of food and drink. The possible duration of life after complete deprivation of food and drink is very variable, and may be stated in general terms to be from five to eight days. Authentic instances are, however, on record in which life has been prolonged much beyond this period, in persons who were so situated as not to suffer from cold, which the system under this condition has very little power to resist. In these cases, also, there was no muscular exertion, and water was very generally taken in abundance. All these circumstances have an important influence in prolonging life. In the Earl of Dudley's Locks Lane Pit, Wallows Colliery, Brierly Hill, Staffordshire, on March 16, 1869, thirteen miners (ten men and three boys) were, in consequence of a sudden irruption of water, incarcerated in the mine for one hundred and twenty hours, without food or light, and practically without water also, as that causing the inundation was of such a very noxious character that the poor men could not drink it. The whole of the men were saved except one, who died frantic. Another instance of eight miners, who survived after five days and sixteen hours of almost complete deprivation of food, is also on record. Berard quotes the example of a convict who died of starvation after sixty-three days, but in this case water was taken.—*Brit. Med. Journal.*

University of Toronto. — Resolutions Passed on the Subject of Affiliations.—Firstly,—That no medical school or college should be admitted to or continued in affiliation which is or becomes connected with another university, either as its medical faculty, or by its professors or lecturers being examiners for the degrees, honours, scholarships, or standing of another university, or its holding out in any way, that its examination will be accepted by another university as entitling to degrees, honours, scholarships, or standing. Provided that this shall not preclude any one or more individual professors or lecturers *bonâ fide*, becoming examiners in another university, the intent being that the faculty of any affiliated college, or any part thereof, shall not be permitted to substantially conduct the examinations of their own students for degrees, honours, scholarships, or standing in another university. Any school applying to be affiliated shall be informed of this regulation, and shall be required to enter into an undertaking to observe it, subject to the express condition that upon breach of such undertaking the statute shall be repealed and affiliation cancelled. Secondly,—that students shall be admitted to the ordinary examinations necessary for obtaining a degree in medicine in this university from all medical schools of good standing, giving such courses of instruction as the senate shall from time to time determine, whether belonging or not belonging to the Province, and even if falling within the class in which it is in the last paragraph recommended that affiliation should not be extended, and even if such candidates

are at the same time undergraduates in another university. Thirdly,—That the statute relating to degrees in the faculty of medicine should be amended by requiring all candidates for a degree to pass a matriculation examination and annual examinations after matriculation, and by prescribing a uniform course for every candidate for the pass degree. Fourthly,—That in the opinion of the senate the examination for honours, and scholarships, and medals, while extended in the fullest and most liberal manner to students coming from any medical school of good standing as aforesaid, whether or not affiliated to this university, and whether or not affiliated to any other university, should not be open to those who are at the same time undergraduates or graduates in medicine in another university.

Some twenty-five cases of goitre (simple enlargement of the thyroid gland, and not bronchocele) have been under treatment at the Medical Dispensary of the University, Philadelphia, by Dr. Roland G. Curtain, the chief of the staff. They have been cured by injections of from vi-x m. of dilute ergotina into the substance of the enlarged gland. The injection is repeated two or three times a week for the space of four months, when the gland becomes thoroughly hardened. The gland begins to shrivel with the stoppage of the injections, and soon returns to its normal size. The injection gives but little pain. The same injection is made with good results in chronic tonsilitis and adenitis. In local rheumatism and lumbago, to relieve muscular stiffness and pain, an injection of $\frac{1}{80}$ of a grain of atropia and $\frac{1}{8}$ of a grain of morphia is made well into the mass of the muscle.

APPOINTMENTS.

John Carrol, of the Village of Don Mount, Esq., M.D., to be an Associate Coroner in and for the County of York.

Aaron Jesse Campbell, of the Village of Gravenhurst, Esq., M.B., to be an Associate Coroner in and for the District of Muskoka.

John Gunn, of the Village of Ailsa Craig, Esq., M.B., to be an Associate Coroner in and for the County of Middlesex.

Births, Marriages, and Deaths.

BIRTHS.

In Toronto, on the 31st ult., the wife of Dr. W. G. Metcalf, of a daughter.

At Thornton, Ont., on the 27th ult., the wife of Dr. R. A. Calligen, of a son.

At Uxbridge, on the 29th ult., the wife of Dr. Nation, of a son.

At Guelph, on the 19th inst., the wife of Dr. A. A. Macdonald, of a son.

MARRIAGES.

On Tuesday, the 5th June, at the residence of the bride, Simcoe, by the Rev. Mr. Grasett, M.A., rector, Geo. W. Wright, Esq., M.D., of Berlin, Ont., to Mrs. Carrie Walker, widow of the late Robert Walker, Esq., M.D.

By the Rev. G. G. McRobbie, of Tilsonburg, A. J. Sinclair, M.B., M.C.P.S., of Paris, Ont., to Amelia, daughter of Capt. McBride, of Port Burwell.

At No. 11, Bellevue Crescent, Edinburgh, on 5th ult., by the Rev. Norman MacLeod, of St. Stephen's Church, Edinburgh, Eugene Wells, Esq., of Woodhouse, near Chelmsford, Essex, England, and formerly of Weston, near Toronto, Ont., to Gertrude Rose, youngest daughter of Dr. Campbell, 112 Bay Street, Toronto.

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TORONTO, AUGUST, 1877.

Selections: Medicine.

THE MUSCULAR ARTERIOLES: THEIR STRUCTURE AND FUNCTION IN HEALTH AND IN CERTAIN MORBID STATES.

BY GEORGE JOHNSON, M.D., F.R.S.

LECTURE III.—*Concluded.*

There is good reason to believe that some of the more formidable *nervous symptoms*, which result from uræmia—in particular uræmic convulsions and a form of transient amaurosis—are directly due to cerebral anæmia consequent on sudden extreme contraction of the muscular arterioles.

There can, of course, be no question that uræmic convulsions are of an epileptic character. A large amount of evidence points to the conclusion that both the loss of consciousness and the convulsions of epilepsy are the results of sudden and extreme anæmia of the brain. In man, and in most, if not in all, warm-blooded animals, a rapid and very copious hæmorrhage usually causes convulsions. Kussmaul and Tenner state *(On the Nature and Origin of Epileptiform Convulsions caused by Profuse Bleeding*, New Sydenham Society, 1850) that in numerous cases of dogs, cats, and rabbits, they observed, without a single exception, violent and general convulsions preceding death by loss of blood. In order to produce this result, the hæmorrhage must be rapid. If it occur slowly, so that the vital powers are gradually exhausted, death then occurs with swooning, drowsiness, and delirium without convulsions.

The same experimenters found that an interruption of the supply of blood to the head of a rabbit, by ligature or compression of the arteries of the neck, produces epileptic convulsions as surely as hæmorrhage does. In about one hundred rabbits they ligatured or compressed the carotids and subclavians, from which, be it remembered, the vertebral arteries proceed; and in every case, except that of one very old animal lean and feeble, convulsions occurred.

In order to excite convulsions, they found it necessary to close all the four arteries which supply the brain. If but one carotid or one vertebral artery remained pervious, the animal was enfeebled and more or less paralysed, but not convulsed. And again, if, during the height of the convulsion, the ligature were removed from one carotid, the convulsions generally ceased immediately, and there was a sudden change from the most frightful spasm to complete relaxation of the muscles. The description of the convulsions thus artificially produced with, as it seems to me, needless reiteration, in the lower animals, shows that they were essentially the same as epileptic convulsions in the human subject. There was the dilated pupil, the tonic spasm, quickly followed by clonic convulsions so violent as to throw the animal forward to a distance of one or two feet, and sometimes even over the shoulders of the operator. The experiments obviously could not be performed on the human subject; but Drs. Kussmaul and Tenner approached as near to this as they dared by compressing the carotids of six men. The result was that in all the face turned pale; the pupils first contracted and then dilated; the respiration became slow, deep, and sighing; then there was giddiness,

staggering, and unconsciousness, and the men would have fallen if they had not been supported. They say that, "in two subjects of weak intellect and moderately anæmic, in whom, notwithstanding the above symptoms, the compression was continued, a choking sensation, attended by vomiting and general convulsions, came on, which, however, did not attain an aggravated form: for, on withholding the compression, they disappeared in a few seconds." (*Op. cit.*, page 28.) Compressing the carotids does not, of course, entirely cut off, but only greatly lessens the supply of arterial blood to the brain; but these experiments render it probable that sudden occlusion of all the arteries supplying the brain would as certainly excite epileptic convulsions in man as in the lower animals. And this conclusion is confirmed by observing the results of certain diseases and accidents in the human subject. Thus convulsions occur almost invariably as a result of sudden suffocation or acute apnœa. It has commonly been supposed that the convulsions thus occurring are caused by the noxious influence of black blood upon the brain. It is far more probable that they are caused by the sudden and extreme anæmia of the brain, consequent on the impeded flow of blood through the lungs into the systemic heart and arteries, as explained in my first lecture. The epileptiform convulsions, which often result from the inhalation of nitrous oxide gas, admit of the same explanation. It is quite certain that, in Kussmaul and Tenner's rabbits, with closed carotids and subclavians, no black blood could reach the brain, yet the convulsions were apparently identical with those which result from suddenly fatal apnœa, whether in the lower animals or in the human subject.

A few years since the following case came under the observation of my friend, Dr. Lavies, and myself. A gentleman, about sixty years of age, had been confined to his bed for three weeks with symptoms which pointed to great feebleness of the heart, and probably to fatty degeneration of its walls. There was dyspnœa on exertion, and sometimes on awaking after along sleep; the heart's impulse and the radial pulse were feeble; there was some œdema of the legs, and over the bases of the lungs there were moist crepitating sounds, probably the result of œdema there. He awoke in the middle of one night, told the nurse that he felt quite comfortable, asked the time, and began to repeat her reply, "Oh, half-past ——", when he suddenly stopped, and the nurse, turning to him immediately, saw that his face was livid and he was in strong convulsions. In a few seconds, and before anyone could answer her call for assistance, the patient was dead. The body was examined, in the presence of Dr. Lavies and myself, by my friend and former colleague, Dr. Kelly. The walls of the heart were thin, soft, and fat. The right ventricle was dilated, and contained firm declorized thrombus, extending from the apex of the ventricle through the tricuspid orifice into the auricle, to the outer wall of which it had evidently been attached and moulded, but, becoming separated from the auricular wall, it had fallen over the tricuspid orifice and completely closed it. Thus, the circulation must have been completely and instantaneously arrested. The result was lividity of the face from venous fulness, and epileptiform convulsions from cerebral arterial anæmia. In this case, as in the case of the rabbits with ligatured arteries, it is evident that the convulsions were caused not by black blood, but simply by the absence of circulating blood in the cerebral vessels.

When animals are killed by air being forcibly blown into a vein, the breathing becomes hurried, the animal suddenly falls down, and usually dies in convulsions; the contents of the bladder and rectum being frequently expelled at the time of death. Dr. John Reid states that, "in very few cases only is death from this cause not preceded by convulsions." (*Physiological, Anatomical, and Pathological Researches.*)

The immediate cause of death in these cases is the arrest of the frothy mixture of air and blood by the contraction of the pulmonary arterioles, the air seldom reaching the left side of the heart; and as a result of this arrest there is, of course, sudden extreme anæmia of the brain, and of every other organ supplied by the systemic arteries. In man, it appears that death from the accidental admission of atmospheric air into a vein during an operation, is

less frequently preceded by convulsions. Probably the chief reason of the less frequent occurrence of convulsions from this cause in the human subject is, that the amount of air accidentally admitted is less, and death consequently is less rapid than when air is forcibly blown into the vein of an animal. It would probably be found, on a careful inquiry, that the occurrence of convulsions in these cases depends upon the circulation being suddenly and completely arrested.

It has been noted, in some cases of suddenly fatal pulmonary embolism, that death has been preceded by convulsions; and Virchow observed, amongst the results of artificial embolism of the pulmonary artery in animals, convulsions and dilatation of the pupil. (*Des Emboles Pulmonaires, par* B. Ball, page 129.)

We find, then, a large amount of evidence pointing to the conclusion that sudden and extreme anæmia of the brain will cause epileptiform convulsions, and a theory of epilepsy has been framed in accordance with these facts; the theory being that the cerebral anæmia, which is the immediate cause of the convulsion, is the result of spasm of the cerebral arterioles. It may be said with truth that this is only one step towards an explanation of the phenomena, and that the cause of the arterial spasm remains to be determined. We will presently revert to this question.

It is, I think, pretty generally admitted that this theory of cerebral anæmia from arterial spasm is quite consistent with the phenomena of epilepsy. It is a matter of general observation that, at the very commencement of an epileptic fit, the face is pallid. There is obviously anæmia of the superficial vessels, and with this there is probably associated anæmia of the intracranial vessels which supply the brain itself. The pallor is in most cases soon succeeded by lividity, owing to the venous engorgement which results from impeded respiration and pulmonary circulation. It is very remarkable that, while the face is pallid, the heart is beating strongly and the carotids throbbing violently. These phenomena would be explained by extreme contraction of the muscular arterioles, resisting the escape of blood from the arterial trunks into the capillaries.

Kussmaul and Tenner endeavoured to support the theory of arterial spasm by experiment, and to some extent they succeeded. In each of two white rabbits they ligatured the two subclavians and one carotid; the cervical sympathetic, on the other side, was then exposed and galvanised, with a view to excite contraction of the arterioles by the stimulus conveyed through the vaso-motor nerves. In two animals no effect was produced; but in the third the background of the eye became completely pale; the pupil dilated, so that the iris could scarcely be seen; the neck was drawn back, and violent convulsions occurred. The electrodes being removed, the spasms ceased, the pupil contracted, and the background of the eye became red; but the animal continued in a swooning condition. After some minutes, electricity applied to the sympathetic nerve produced the same effect as at first. A third attempt to excite convulsion did not succeed.

The authors suggest that these experiments deserve repetition, with a view of rendering certain what at present is probable, namely, "that epileptic convulsions can be brought about by contraction of the blood-vessels induced by the vaso-motor nerves."

According to this theory, then, epilepsy is the result of sudden anæmia of the brain; and this anæmia, when not caused by a sudden and profuse hæmorrhage, or by some impediment to the circulation outside the cranium, is due to an extreme contraction of the muscular arterioles. This arterial contraction may be determined by two main classes of causes:

1. By a purely nervous reflex influence, such as, for example, may be excited by anger or terror, by the irritation of the gums during dentition, by a calculus in the kidney, the ureter, or the gall duct, or by worms in the intestines.

2. In the second class of cases, a blood-poison is the exciting cause of the arterial spasm and the resulting epileptic convulsion. This includes all cases in which convulsions result from retained excreta, of which uræmic convulsions are a typical example.

From the preceding narrative of facts, it appears to be highly probable that uræmic convulsions are directly due to a sudden and extreme anæmia of the brain, resulting from contraction of the cerebral arterioles, and that the arterial contraction is excited by the influence of impure blood upon the vaso-motor nerves and centre.

This theory, moreover, indicates two modes in which uræmic convulsions may be prevented, namely: first, by means directed towards removing the morbid quality of the blood; and, second, by remedies which lessen the reflex excitability of the nervous centre.

(*To be continued.*)

ON THE RESPIRATORY SOUND, NORMAL AND ABNORMAL.

MM. A. Bondet and A. Chauveau (*Revue Mensuelle de Médecine et de Chirurgie*, March, 1877) availed themselves of a somewhat rare opportunity of experimenting on a horse suffering from pneumonia; and they believe their experiments to possess especial interest, as demonstrating the fundamental principles upon which the explanations of the chief respiratory sounds heard over the walls of the chest rest.

The experiments were made in the Veterinary School at Lyons so long ago as 1862, but by some inexplicable oversight they are only now published. The subject was a young and vigorous mare attacked with pneumonia of the left side, attended with such alarming symptoms that death was thought imminent. All over the right side there was considerable increase of the natural respiratory murmur; no sound with expiration. On the left side, over the upper half, there was also exaggerated inspiratory murmur; over the lower half this murmur was completely abolished, and replaced by a double tubular blowing sound. The inspiratory part of the tubular sound was longer and softer than the expiratory portion, which was louder but shorter.

Auscultation of the trachea showed that the inspiratory and expiratory sounds heard over this tube, though louder, possessed exactly the same characters as the tubular sounds heard over the consolidated lung.

The experiment was commenced by making an incision in the trachea in the middle of the neck, about 20 centimetres long. The lips of this wound in the trachea could be separated by the index finger of each hand, so as to make a large opening in the tube, more than equal to its transverse diameter; this opening gave free passage to the air during inspiration and expiration, and allowed no air, or only an insignificant quantity, to pass by the larynx. The entrance of blood and mucus into the trachea and bronchi, as a consequence of this operation, and the distress of the animal, the convulsive efforts at breathing, the loud mixed râles which accompanied them, completely prevented the authors from continuing their intended comparison of the breath sounds before and after the operation. The next day, however, finding to their surprise the animal not only alive but better, and the physical signs precisely the same as before the operation, and uncomplicated by râles of any kind, they were able to go on with their experiments. 1. On listening over the hepatized portions of lung with the *trachea closed*, they heard the sounds already described; with the *trachea opened*, the inspiratory tubular sound disappeared, and the expiratory sound was much shorter and weaker. 2. Exactly the same phenomena were observed on auscultating the trachea below the incision, when this was *opened* or *closed*. 3. On auscultating the sound lung and the sound portions of the diseased one, no alteration was observed in the natural respiratory murmur, whether the trachea were opened or closed; if anything, the murmur was a little increased in intensity at the moment when the trachea was opened. 4. Sounds were artificially produced in the trachea by introducing into it a caoutchouc tube through the lips of the tracheal wound, and blowing through a membranous reed fixed to its free extremity, thus imitating, as near as possible, the conditions under which the voice is produced, with the view of comparing the conducting power of the healthy and the hepatized lung. Over the hepatized portion of the left lung, the sounds were heard with the greatest clearness. Over the healthy portions of lung, the transmission of the sounds was wholly arrested.

These experiments were several times repeated, with the same results. Subsequently, when there arose profuse bronchial secretion, the tracheal sounds would suddenly cease to be heard over the hepatized lung; at the same time, there would be noticed entire absence of the tubular or any breath sound; but if the animal coughed and expectorated, all the tracheo-pulmonary acoustic phenomena returned as clearly as before.

From these experiments MM. Bondet and Chauveau draw the following conclusions: 1. In the horse, healthy lung tissue is a very bad conductor of sound; it, indeed, completely interrupts the sounds produced in the trachea. 2. The normal inspiratory murmur originates in the lung-tissue itself; it arises where it is

heard. From other experiments, they conclude that it is caused by the entrance of air into the *infundibules*. 3. Hepatized lung-tissue is a good conductor of sound, since it brings clearly to the ear, applied to the chest, the sonorous vibrations artificially produced in the trachea. The mechanism of this conduction may be thus analyzed: 1. The vibrations are thus transmitted to the pulmonary parenchyma not by the walls of the air tubes, but by the air contained in them. 2. Arrived at the ultimate ramifications of the bronchia, these vibrations are conducted to the ear by the pulmonary tissue and the chest-wall. 3. The tubular sound heard over hepatized lung is a transmitted sound originating at a distance from the spot where it is heard. 4. The tubular breath-sounds of pneumonia and tracheal sounds are the same phenomena heard at different spots, and alike produced by the passage of air through the aperture of the glottis. The modified expiratory sound heard when the trachea is opened is produced at the lower orifice of that tube.—*London Medical Record.*

THE TREATMENT OF TAPEWORM.—Prof. Mosler has been advocating a system of treating tapeworm which, according to a Swiss medical journal, has been attended with remarkable success. Its chief characteristic is the injection of large quantities of warm water into the colon, after the administration of the anthelmintic. The diet is first regulated, food being given which is supposed to be distasteful to the tapeworm—bilberry tea, herrings, sour cucumber, salted meats. The intestine having been, as far as possible, emptied by laxatives, a dose of the extract of pomegranate bark is administered, prepared from the fresh bark, and then a large quantity of warm water is injected into the rectum. The theory is that the worm, previously brought down into the colon, is prevented by the water from attaching itself to the wall, and is brought away by the liquid on its escape. It is asserted that in every case in which this treatment was adopted the head of the worm was removed.—*London Lancet.*

CROTON CHLORAL IN PERTUSSIS.

To the Editor of THE LANCET.

SIR,—About a year ago I saw in your pages a letter urging the use of quinine in whooping cough; I tried it extensively, and in some cases it seemed to do good, but in those fully developed it was almost invariably vomited. Having then had some experience of croton chloral in various spasmodic and nervous diseases, I commenced giving it in this complaint, and have now treated between two and three hundred cases successfully with it.

It has lately been advocated once or twice in your columns, but, on making inquiries amongst medical men of my acquaintance, I find it is by no means in general use, and that some who have tried it have already relinquished it as useless.

From what they tell me, I think the causes of its failure in their hands are two: (1) Smallness of dose. Children tolerate it remarkably well, and a child a year old will take one grain every four hours. For older people the dose does not increase in the same ratio as the age, a child from six to twelve years requiring two-grain doses, and the adult seldom requiring more than four grains. (2) Want of regular administration. It should be specially impressed on parents and nurses that to do good it should at first be given every four hours, *night and day*, even should the patient require waking up. At the end of a week it need only be given every four hours during the day, and at night when the patient is awake.

The worst cases usually completely yield in a fortnight. The drug does not upset the digestive organs, and by lessening the frequency and duration of the paroxysms, puts an end to troublesome epistaxis and vomiting. Sometimes the first few doses produce a feeling of irritation about the throat and fauces, but this soon passes off. I usually give it dissolved in compound tincture of cardamom. and sweetened with glycerine.

I am, Sir, yours, &c.,

A. MILSON ROBERTS, L.K.Q.C.P.I.

Buckhurst-hill, Essex, June 19th, 1877.

NITRITE OF AMYL sometimes causes alarming symptoms. It should be used cautiously and in small quantity.

Surgery.

A CLINICAL LECTURE ON OVARIOTOMY.

Delivered in University College Hospital, London.

BY CHRISTOPHER HEATH, F.R.C.S.,
Holme Professor of Clinical Surgery, etc.

GENTLEMEN,—You have recently had under your notice a case of multilocular ovarian cyst, and have had the opportunity of seeing me remove it by the operation of ovariotomy, with, I am happy to say, complete success; and I propose now to make a few clinical remarks upon the subject. The patient was a married woman aged 29, and the mother of four children. In 1873, after a confinement, she noticed that her abdomen remained large. She was confined again in July, 1874, the enlargement still persisting, and she wore an abdominal belt for nine months. In the early part of 1876, she noticed a hard lump in the abdomen, and applied for advice at a special hospital, when she was told that she had a fibrous tumour of the uterus, and attended for some months without benefit. She was recommended to me by a medical friend, and was admitted here on December 2nd, 1876, when the following was her condition, as reported by Mr. Smith, the clinical clerk:

The abdomen is greatly distended and of conical shape, the apex being midway between the umbilicus and pubes. There is dulness over the front and sides of the belly, reaching three inches from the umbilicus on the right side, and almost to the flank on the left side, with tympanitic percussion above and to the sides of the dull area. The surface of the tumour, as a whole, is rounded, several sulci marking off distinct rounded portions; these are very tense and fluctuating, but there is no fluctuation from side to side of the whole tumour. Just to the right of the umbilicus, a flat and very hard lump is felt, about the size of an almond in its shell. The abdominal wall is marked with purple lines from stretching; it is thin and freely moveable over the tumour. *Per vaginam*, the uterus was found to be normal in size, but pushed over the left side; to the right and in front of it, rounded masses were to be felt through the vaginal wall.

Now, I beg you will understand that the diagnosis of abdominal tumours, presumably ovarian, is by no means easy, and that the most experienced ovariotomists are liable to mistakes. Thus, tumours of the uterus have been confounded with ovarian tumours, and, *vice versa*, cysts of the kidney and liver and enlarged spleens have all been taken for ovarian tumours; and, in fact, the late Mr. Baker Brown's *dictum* is undoubtedly true, that one cannot be certain about the nature of a given tumour until one's hand is actually upon it. Still, this was a remarkably easy case for diagnosis; the thin abdominal wall allowed the multiple cysts to be very distinctly felt, and the only unsolved question was whether the dulness in the left flank was due to some solid matter or, as it proved, to tightly packed cysts with viscid contents. Under these circumstances, a preliminary tapping could have been of no service, as it sometimes is in cases complicated with considerable ascites by which the tumour is obscured, or cases of one very large cyst, possibly in the broad ligament, where a single tapping will often cure the case altogether.

I, therefore, recommended the patient to undergo the operation of ovariotomy, putting the risks fairly before her and her husband; and, upon her assenting, had her transferred, with Dr. Graily Hewitt's kind consent, to the house close by, which is devoted to the treatment of such cases under his care. My reason for doing this was that undoubtedly cases of ovariotomy do not do well in the general wards of a hospital, and that the only single ward at my disposal is at the top of the general staircase, and liable, therefore, to have noxious matters carried into it from below. I do not believe that the patient would have sustained any harm whatever if I had operated in this theatre, provided she could have been placed in an isolated bed afterwards; but, this being practically impossible in our present building, you had to follow the patient over the way to witness the operation. Now, the operation was done on a Thursday; and, on the previous day, I had made my visit here as usual, and the only restriction I put upon those who attended the operation was that they should not be in actual attendance upon cases of contagious dis-

ease. I learn from a paragraph in an American journal, that an eminent ovariotomist requires all who witness his public operations to sign a paper certifying that they have not seen a dead body or an infectious living case for seven days; but such a sweeping precaution, even if it can really be enforced, seems to me uncalled for, when the operator must, in the ordinary course of practice, be daily placing his fingers in contact with discharges from the uterus quite as offensive, and probably as dangerous, as anything met with even in a *post-mortem* examination. I do not think anyone would be justified in making a *post-mortem* examination or going to an infectious case just before an ovariotomy; but I have great faith in a night's rest and a morning bath for removing all taint from the living body. Were it otherwise, indeed, I do not see how any one could practice his profession with safety, and the effect of such a regulation as that given above would be to confine ovariotomy to a very select circle of operators.

The operation was performed on December 6th, the patient being under the influence of ether. I made an incision exactly in the middle line, three inches and a-half long, beginning about midway between the umbilicus and pubes, and carrying it down towards the pubes. Having opened the peritoneum, I divided it to the same extent on a director, and the bluish cystic tumour at once came into view, there being no ascitic fluid. I then passed my hand in to make sure that there were no adhesions, and afterwards tapped the presenting cyst with a large trocar. Through this cyst, I tapped other cysts, but was unable to reach the large cysts in the left flank; and, therefore, having drawn the empty cysts forward, I tapped at a fresh spot. Having emptied two or three cysts through this opening, I was then able to draw the entire tumour out; Dr. Williams, who assisted me, carefully guarding against any prolapse of the intestines. The fluid of these cysts was thin, and ran readily through the camula; but not unfrequently one meets with such dense cyst-contents that it is necessary to scoop them out with the fingers, the aperture in the cyst being enlarged with scissors so as to admit the hand, and the greatest care being exercised to prevent any escape of the contents into the peritoneum. The only adhesions were two of the ometum to the tumour, and these I tore through, afterwards putting fine silk sutures upon a couple of bleeding vessels.

Next came the important question of the treatment of the pedicle. Having tried all the modern plans, I gave the preference to that of "tying and dropping"; *i.e.*, I tied the pedicle with silk and cut the ligatures short, so that I might close the wound completely. In doing this, it is important that there should be no risk of the ligatures slipping, and the best way is to use a double ligature, passing it through the pedicle with a probe, and then tying the two halves separately; and then, as an extra precaution, one of the ligatures is made to encircle the entire pedicle again on the uterine side of the other ligatures. I then divided the pedicle half an inch beyond the ligatures, and removed the tumour, which weighed three pounds and three quarters after the removal of five pints of fluid by the tappings. The tumour involved the left ovary; and I proceeded to examine the opposite one, and, finding cystic disease commencing there, I removed it with the same precaution. The edges of the incision were brought together with five silk sutures, which were passed deeply through the entire thickness of the abdominal wall, including the peritoneum. Mr. Spencer Wells settled the question of including the peritoneum by experiments on animals (the specimens from which are in the College of Surgeons' Museum), and showed that, if the edges of the peritoneum were brought together, they united rapidly by lymph, and thus effectually closed the peritoneal cavity again and prevented the access of inflammatory products. The same rule would hold good in cases of accidental wound of the peritoneum. No superficial sutures were used, but the abdomen was padded with cotton-wool and carefully strapped with plaster, so as to give support to the abdominal wall and contents, and thus to obviate vomiting to a great extent.

I need not trouble you with the details of the after-treatment, which consist simply in careful nursing, a dose or two of morphia to relieve pain, a simple injection on the fourth day, and a dose of castor-oil on the fifth day. The

sutures (one of which set up a little suppuration) were removed on the seventh day after the operation; and the patient went home on December 23rd, seventeen days after the operation, in order to spend Christmas with her family.

Although ovariotomy was first performed in 1809 by McDowell of Kentucky, who was a pupil of John Bell, the operation in modern times has been entirely of British cultivation. Mr. Lizars of Edinburgh was the first to attempt ovariotomy in this country, and by the long incision, *i.e.*, from the umbilicus to the pubes; his example was followed by a few other surgeons, and from time to time a success was recorded. The short incision, with withdrawal of the contents of the cyst, was adopted in 1836 by Mr. Jeaffreson of Framlingham, but the pedicle and ligatures were still allowed to hang out of the wound and to set up suppuration in the peritoneal cavity. The late Mr. Duffin, in 1850, first called attention to this danger, and proposed to keep the strangulated pedicle outside the peritoneum; and this method was improved upon in 1858 by Mr. Jonathan Hutchinson, who devised the clamp now in common use in some form. Mr. Spencer Wells, who has had the largest experience of any ovariotomist, had his first case in 1858; and since that time the operation has been performed by numerous surgeons, both in this and other countries, and is now a thoroughly established proceeding. My own experience has been comparatively small; the case you have seen being only my fifteenth; but the mortality has been small also, viz., three deaths, or one in five cases—this being, I believe, about the rate in Mr. Wells' much larger number of cases. One of my deaths was accidental, *i.e.*, it resulted from slipping of the clamp some hours after the operation, when internal hæmorrhage occurred before the pedicle could be secured. On the other hand, I have never had occasion to abandon an operation, though one or two cases have been rather desperate ones, one case having been already attempted by another operator, who gave up and closed the wound successfully; and others having been already declined on account of adhesions. In the first of these, the parts were so matted together that I, unawares, divided a coil of small intestine; but, by making an artificial anus, the patient recovered, and is now in perfect health, with only a small fæcal fistula, which gives her no inconvenience. (The case is recorded in the Clinical Society's *Transactions*, vol. v).

The method of treating the pedicle I adopted in this case, viz., "tying and dropping," was brought into practice by the late Dr. Tyler Smith, who had a series of most successful cases, and it appears to me to possess two great advantages—1. That it is applicable to all pedicles, whether long or short; and 2. That it admits of immediate closure of the wound in its whole length. My personal experience of the clamp is limited to the case already mentioned, in which a fatal result ensued from the slipping of the pedicle through the clamp, for I never again employed it; but I have seen it used frequently, and it does very well when the pedicle is long. But in many cases the pedicle is so short that very considerable traction upon the uterus is exercised in order to get the clamp outside the abdominal wall, thereby causing pain. Another objection is that the stump sometimes gives trouble if it become adherent to the cicatrix, a regular menstrual discharge taking place occasionally every month. Still, it is right that you should know that Mr. Wells has employed the clamp in the greater number of his cases. Mr. Baker Brown introduced the practice of dividing the pedicle with the actual cautery, and devised a cautery-clamp, which I show you here. I have employed it in several of my cases with good effect, but I do not think it so safe as the ligature; for, however careful you may be to cut the pedicle slowly with an iron not too hot, so as to sear the cut edges thoroughly, there is always the risk of some small vessel bleeding and requiring a ligature, and sometimes the burnt edges become separated and the bleeding is free. It is exactly the difference between applying torsion to a large artery and putting on a ligature; with the last, one feels perfectly safe, whilst with the former something *may* go wrong.

You may ask what becomes of the ligatures left in the abdomen. They become rapidly coated with lymph and buried completely, so that it is impossible to find them a few months afterwards. Possibly silk, being an animal product, may undergo partial absorption, as has been suggested; but twine ligatures do practically just as well, and are as completely hidden. —*British Medical Journal.*

ON THE BEST MEANS OF PROMOTING UNION BY FIRST INTENTION.

BY E. W. LEE, M.D., CHICAGO.

Ninety-nine practitioners out of a hundred will proceed to dress an incised or lacerated wound by bringing the edges together, and maintaining them in position—or trying to—by means of strips of adhesive plaster or interrupted sutures of silk. For several years I have been in the habit of using needle sutures for all wounds, varying the size and shape according to the location and depth of the wound. For all wounds not very deep, I use Sharp's No. 12 cambric needle. It is very small, and is easily introduced and extracted.

If plaster be used, no matter how carefully it may be applied, in a few hours it stretches, permitting the edges of the wound to gape, although the apposition was perfect when leaving the hands of the surgeon. If interrupted sutures of silk be used in the ordinary way, the edges of the wound are brought together, leaving underneath a cavity for the accumulation of discharges and subsequent suppuration; the silk causes more or less irritation immediately, it begins to cut, and unless taken out in twenty-four hours, leaves an ugly mark at the seat of the suture. In all wounds over one-third of an inch in length, I use these needle sutures. We all know what an unirritating substance steel is. Needles have entered the body and remained there for years, causing no inconvenience whatever, coming out in an entirely different location from where they had entered. Suppose we have a wound to dress, say one and a-half inches long, I proceed in the following manner: Carefully cleanse the part of all foreign matter, *and wait for hæmorrhage to cease.* Then if the location and depth of the wound be suitable, take a No. 12 cambric needle in a needle holder, insert it a proper distance from the edge of the wound, push it through at about half the depth of the wound, bring the point out about the same distance on the opposite side. Take now a piece of stout ligature silk or thread, and surround the transfixed tissue and draw the edges of the wound together. Put in as many sutures as may be necessary to secure perfect apposition, and the dressing is complete. It is useless to put on plasters in addition; they stretch, they are unsightly and unclean. In dressing wounds by this method pressure can be made so as to bring the edges of the wound together *from top to bottom;* no space is left for secretions to accumulate; no chance is left for stretching, and for the edges of the wound to gape; the pressure being so equally distributed, the suture does not cut through as a silk one will. The only objection to allowing the sutures to remain for four or five days, is that after forty-eight hours they are difficult of extraction. This difficulty I have overcome by having the needles electroplated with silver. To extract the needle, I take the end in the needle-holder, gently turn it round in the wound once or twice, and then withdraw it. I do not cut the silk, it remains adherent, the blood and serum forming an incrustation, holding the silk in position; this I am careful not to disturb. I once dressed an incised wound twenty-four inches long, in the manner described. Between forty and fifty needles (No. 12) were used; every portion of the wound healed by first intention. The advantages of this plan do not by any means end here. Suppose the radial, temporal, or palmar arteries be wounded; many practitioners not expert will spend considerable valuable time in seeking and ligating any of these vessels, and consequently more loss of blood than need be is occasioned. Here the needle suture is not only the best means of bringing the edge of the wound together, but it is the quickest, easiest, and safest means of stopping hæmorrhage by acupressure. I have repeatedly adopted this plan in all the above-mentioned accidents, and always with the utmost satisfaction. Suppose union by first intention does not take place; then cut the silk, withdraw the needles, and the amount of retraction that takes place will not be nearly so great as it would had they not been used. I usually succeed in getting union by first intention, and when I have failed, it has been either from a faulty condition of the system, or from being too hasty in the application of the dressing. In incised wounds about the neck and face, where primary union is so desirable, this plan is peculiarly suitable. In scalp wounds, prudent practitioners hesitate to

use silk sutures, so apt are they to set up erysipelatous inflammation; to make plaster adhere, it is absolutely necessary to shave the scalp for a considerable space around the wound. Use needle sutures, and it is not necessary to remove any hair at all, and they may remain in the scalp as long as may be necessary with impunity. This may seem a very small matter to say so much about; but with most of us, dressing wounds is an every-day occurrence, and any improvement that may be introduced, however small, is of practical importance. I have tried this plan so long and thoroughly, and with so much gratification to myself and patients, that I feel it a duty to urge its substitution for silk and plaster entirely. It is not of course original with me, yet it is not adopted to any extent by the profession. I am confident that if the dressing be carefully done by those adopting this method, the attending success will be so uniform as to prohibit the employment of any other.—*Chicago Med. and Surg. Journal.*

SURGEON-MAJOR PORTER'S SAWDUST PADS.

BY GEORGE W. CALLENDER, F.R.S., SURGEON TO ST. BARTHOLOMEW'S HOSPITAL.

Sir Joseph Fayrer having asked me to try the sawdust pads used by Surgeon-Major Porter as a dressing, where there is a discharge of pus, and that gentleman having been so good as to furnish me with samples of the dust from the Memel pine recommended by him, I was glad to employ the pads in such cases as seemed likely to put their utility to a fair test.

I will first say how the pads are made; secondly, relate the cases in which they were used; and thirdly, express my opinion as to their value in surgical practice.

The sawdust is obtained by preference from the Memel pine; that from red deal may also be used, either of these containing a large amount of terebine. The dust from hard wood will not answer, as Mr. Porter finds that it does not absorb freely. It has first of all to be well sifted, for, as supplied from the works, it often contains coarse fragments which would cause, under pressure, hurt or inconvenience. The fine dust is then enclosed in muslin of such quality as will just prevent its escape. The bag, when made, is shaped for each case as may be required; when about three-fourths full it is closed, and is then quilted, otherwise the wood-dust will gravitate, or under pressure, will be displaced entirely from certain parts of the bag. As to the muslin, I have ventured to depart from Mr. Porter's practice in using ordinary instead of antiseptic gauze, no advantage being gained by the use of the latter. The pads thus made are applied either to side-splints, or to cover an ordinary back splint (as for a compound fracture of the leg), or over abscess wounds, or over suppurating surfaces, or over dying or dead tissues; they are used, in fact, either as pads or as the dressing over any part.

The following, amongst others, are cases in which they were employed :—

On April 26th, a male, aged sixty-seven, fell off the kerb, and was run over by a heavy van. He thus sustained a compound fracture of both bones of the right leg, the soft parts being severely damaged by the pressure of the wheels passing over them. The limb was supported on sawdust pads fitted to an ordinary back-splint, and the wound was covered with lint soaked in carbolized oil. When I saw the patient, it was evident that very extensive sloughing of the soft parts must ensue. The whole leg was therefore enveloped in lint soaked in carbolized oil and covered with gutta-percha tissue. Thus, and with the pads, which were saturated with discharge and required changing about every four or five days, the process of sloughing was passed through without any unpleasant odour and without constitutional disturbance. The utility of the pads in this severe case was marked, the discharge being fairly absorbed by them, and remaining inodorous. The patient is now—three weeks after the accident—well in himself; he has, however, to heal up an extensive surface left in a state of ulceration by separation of the sloughs, and it is more than doubtful if he will have the strength to do so.

A strumous lad, aged fourteen, was taken into the hospital with acute necrosis of the shaft of the tibia, involving also the lower epiphysis, and attended with destructive inflam-

mation of the ankle joint. The suppuration was profuse. The leg was swung in a sawdust bag, with great comfort to the patient, especially as it is now found to be necessary to change the supporting pad only once every ten days, instead of daily, as before its use. The relief to the patient is shown in the improvement of his health, he having increased ten pounds in weight since the greater ease and quiet thus gained for him during the last six weeks.

Apart from the question under consideration, these cases are of interest with reference to the results obtained in the treatment of severe wounds and extensive suppurations. As to the use of the pads, it may be said that they are approved by the sisters for their cleanliness, and for the manner in which they keep the bed-linen from being soiled by discharge of serum or of pus. They are easily made so as to fit as required, and they are inexpensive. When the quilting is properly attended to they are comfortable to the patient, readily yielding to such pressure as that, for instance, caused by the weight of the leg, and moulding so as to give equable support. Whilst they effectually absorb discharge, it is as well, when this is considerable, that the pad should be changed every two or three days, but when, in addition to the pad, carbolized oil dressing is used, they can be left for a longer period. Thus, in the case of the two amputations, the pads which supported the leg in one, and the thigh in the second, were not touched for three weeks, and for fourteen days respectively. I do not feel disposed to rely entirely upon these pads for keeping parts absolutely clean; but in conjunction with carbolized oil, or with some kindred dressing, they are amongst the best pads with which I am acquainted, and I consider that we are much indebted to Mr. Porter for giving us an appliance which is simple, inexpensive, and efficacious. I may add, that, mixed with shot, so as to give weight to the appliance, these pads may be used to make pressure, when such is desirable, as over some forms of abscess, to prevent redistension from collection of pus in a sac which has been opened.—*London Lancet.*

Another death from chloroform occurred at the Blackburn Infirmary, death ensuing quickly on the stage of struggling.

NEW OPERATION FOR EXCISION OF THE KNEE-JOINT.

The May number, 1877, of the *New Orleans Med. and Surg. Journal* quotes a paper from the *British Medical Journal* describing a new operation for excision of the knee-joint which seems to have some advantages. The paper is by Wm. Knight Treves, F.R.C.S., Surgeon to the National Hospital for Scrofula, Margate.

The object of Treves' operation are to leave the tissues in front of the joint uninjured, to preserve the natural covering of the joint, and to keep intact the extensor tendon with its attachments. The bones are sawn *in situ.*

1. Make a semi-lunar incision about three inches long on each side of the joint, the lowest point of each incision being thoroughly dependent for the exit of pus or serum.

2. Divide the lateral ligaments on each side, and reflect the tissues till the synovial cavity in front is well opened. Divide any adhesions in front. Pass a wide director behind the joint in front of the posterior ligament, and divide with a narrow bistoury the crucial ligaments and any adhesions between the bones.

3. Insert a metal retractor in front of the bones to secure from injury the tissues in front, and the skin and tissues loosened from the sides, while the bones are being sawn. The blade of a butcher's saw, instead of a chain saw, is passed behind the joint; and this being connected with its frame, a thin slice is sawn from the joint ends of each bone. The sawn surface of this slice is the exact counterpart of the surface left behind; and if on examination, it appears to be healthy, pass on to the patella, which is left, if healthy, or sliced, if its cartilage be ulcerated.

The following are the chief advantages claimed for this operation :—

1. Decided improvement in the after appearance of the limb. The front view shows little difference from the other limb.

2. Greatly increased power of extension. After ordinary excision, extension is often feeble from the divided and shortened extensor tendon; the leg is inclined to drag, and the patient catches his toe in walking. With Treves' operation, the patient can lift his leg even before union is firm, and he gets increased

advantage from the additional power and handiness of the limb.

3. The extensor tendon being still attached to the tibia in front, whilst the posterior ligament is intact behind, the bones are not so loose, and the tibia is not so likely to become displaced.

4. This mode of operation partakes of the nature of a subcutaneous operation. The sawn surfaces are still left under their natural covering; they are not exposed under an extensive wound, which will sometimes gape in spite of care; but, being well protected, they unite, Dr. T. believes more kindly and readily than with the usual operation. This is, after a little practice, a very easy operation.—*Virginia Med. Monthly.*

Contribution to the Therapeutic Application of the Potassio-Tartrate of Iron.

BY DR. VINCENZO GOZZOTINO.

In this note the author takes up the consideration of the properties of this preparation as a topical medicament. After having quoted Ricord and others, who employed it as a modifying agent in superficial ulcers and indolent wounds, he states that he has found it most useful in cases of chancre (chancroid) of regular course, in which it acts beneficially as an antiphagedemic, and he likewise observes that under this method of treatment buboes are less frequently found by him than has happened when the sores were treated with caustics. He also lauds it as an antinecrotic, having arrested by means of the potassio-tartrate of iron, various gangrenous processes which had resisted the use of other remedies. He says that he has found it very useful in cases of old fistulæ, injecting it within them; and he has found it suitable to cases of blenorrhœa, especially when of a torpid character, owing either to the individual constitution or to the condition in which the urethra was found. Lastly, he states that he has employed it with advantage for dressing a stump resulting from the disarticulation of a finger. Besides its efficacy in all these applications, he lauds the innocuousness of the potassio-tartrate of iron, which he insists has neither produced nor augmented any suffering on the part of the patient.—*Dr. P. Giorgi, Lo Sperimentale, from Il. Morgagni.*

Materia Medica.

OBSERVATIONS ON THE USE OF CHLORAL.

BY DR. OSCAR LIEBREICH.

Professor of Therapeutics, University of Berlin.

In consequence of the great interest which has been shown in the medicinal use of chloral, I beg to submit the following remarks:—

The recent death of Mr. F. M. Levison has, not unjustly, excited commotion in the medical world, and will give me an opportunity of communicating the view at which I have arrived from my own experience.

The normal dose of chloral hydrate in a case of simple insomnia should not exceed 1·25 to 2 grammes (19·3 to 30·8 grains). It is, however, of course, necessary to individualise. It will generally be observed, that persons who can take large quantities of alcohol in any form, or who are accustomed to its use, require a considerably larger dose; while for enfeebled and exhausted individuals, unaccustomed to alcohol, a smaller dose is sufficient. From my experience, I can assert that, even when chloral hydrate has been used for a year, the dose—provided that the patient's condition remains the same—does not require to be increased.

Chloral hydrate differs essentially from opium and its alkaloids, of which it may be asserted with certainty that, in order to produce the same effect on the organism during their continued use, the dose must be increased to an incredible amount. At the same time every observant physician will arrive at the conclusion that a patient never acquires the same tolerance of chloral hydrate as is characteristic of the use of opium and its alkaloids. A patient is not reminded of opium and morphia by want of sleep, but by a peculiar sensation which has been designated by the fairly appropriate name of "morphia-hunger"; it is not unlike the condition in which a smoker finds himself when longing for tobacco.

The amount of the dose for continued use varies according to the pathological conditions. For some persons one gramme is enough, others are only content with three grammes. The sudden production of dangerous symptoms by a normal

dose after chloral has been used for some time, has not been observed by me; and the statement as yet rests on no well-authenticated cases. I have already referred to this in my Treatise on Chloral Hydrate (third edition, Berlin), remarking that Crichton Browne's case (*The Lancet*, 1871, vol. i. p. 440) cannot be adduced as an instance of the injurious action of chloral. The patient, who was the subject of melancholia, took, for ten months, two-gramme doses of chloral, and then sudden death occurred after a dose of two grammes. How often does not sudden death occur in the insane without the cause being known? That death should occur suddenly after a single dose of two or three grammes may be explained by a fact which does not place the conscientiousness of the vendor in a very pleasant light. Before its introduction into practice, chloral was known to most chemists by name only, so that preparations were brought into the market which not only contained little chloral, but were loaded with noxious ingredients. I can here relate some facts showing how chloral hydrate completely fell into disuse in certain districts. In Bavaria, a patient of Dr. Siegmund, a Berlin physician, used no chloral, although suffering from severe insomnia, because it always made him ill; and he heard the same complaint from other persons. Dr. Siegmund repeated the experiment with another preparation of chloral, which at once produced the desired result; and from that time the patient has used this chloral without perceiving any bad result.

With such impure preparations it is impossible for the physician to learn the dose.

A case interesting in this respect has been described by a Bavarian physician, Dr. Mayer, in the *Correspondenzblatt der deutschen Gesellshaft für Psychiatrie und gerichtliche Psychologie*. A physician was obliged to administer to a female patient, on account of insomnia, six or seven grammes of chloral. After the administration of one of these doses, the physician was called to the patient, who was in a very deep sleep, which lasted forty hours. On inquiry, he found that the otherwise not very conscientious apothecary had brought a new preparation into use. In this case, the first preparation was fortunately only deficient in chloral, without containing injurious substances. Other cases, however, may be related which cause suspicion.

In a hospital here chloral hydrate was used, and the physician came to me in a state of perplexity to describe the peculiar effect of the chloral. The patients did not obtain rest, but became delirious; their faces assumed a very red appearance, and their conjunctivæ were evidently injected. I had the chloral hydrate given to me, and now use it in demonstrating to my pupils the impurities, consisting of various products containing chlorine.

It is in America especially that a bad chloral hydrate is constantly supplied, and I am, therefore, not surprised that a dose of twenty grains should have produced a fatal result in a case reported there. Dr. E. F. Ingals relates, in the *Chicago Medical Journal and Examiner*, a case which Dr. Aschbough had seen in a friend's practice. This case is incapable of being analysed, as an exact description is not given, and I agree with the opinion expressed by the *Medical Examiner* that a case of this kind ought to be described clearly. Already before this, I believe, I was able to assert that a chloral or a commercial solution was in use, regarding which it was impossible to learn what material was employed in its manufacture.

From the first it has been my endeavour to furnish the manufacturers of chloral with complete details, so as to keep up a good preparation, and I have especially pointed out that the chloral hydrate in cakes must be purified from benzol by several crystallizations. There are then left dry crystals, very hard, with a slight odour permanently durable, in the place of cakes which contain a mass of impurities. These crystals can be kept for any time; they do not undergo decomposition, and are free from every impurity. As this operation is attended with greater labour, there is a slight increase in the price per pound. The result of this increase of price, however, is that the medicine is in the greatest danger as regards its employment, and the benefit which might be derived from it is almost entirely lost. As has already been observed, in nearly all America cakes are alone used, which, although perhaps good at first, are really decomposed. Of the

lozenges that are sold it is often alleged that they are made from the crystals. These have a bad effect, while the testing of chloral in solution cannot be carried out, since, in determining the chloral, the impurities undergo further decomposition.

As regards the dose, it is not possible to speak of a normal dose. I have already pointed out that ordinarily small doses aggravate the condition in trismus and tetanus. Here I have used as much as eight grammes with a good result. In the case of drunkards, however, I would recommend caution. It is also most advisable not to allow milk to be taken, as was done in the Balham case, since under its use the formation of chloroform goes on rapidly, and may occur in the stomach.

That exceptionally large doses of chloral may be taken by men is proved by the injection of chloral into the veins. An injection of 6·75 grammes of chloral produced in eleven minutes complete anæsthesia, and a sleep which lasted thirteen hours. I merely mention this fact, without entering on a criticism of the treatment.

From what has been adduced, it is evident that the first thing to be ascertained in any unfortunate case is whether the result is due to the chloral or to some other product accompanying it. According to my view all physicians should take especial care to use only pure crystals, or solutions regarding which there is good ground for trusting to the goodness of the material used by the manufacturers. When this is done it will be possible to speak of a sufficient dose, and to weigh equally the advantages and disadvantages of chloral against each other.

In my opinion coincident circumstances probably co-operated in the Balham case ; they should not be overlooked, and, considering the novelty of the remedy, and the employment of a preparation recently brought into use for the first time, should not be charged as a subject of blame to the physician.—*London Lancet.*

T. R. Fraser, M.D., F.R.C.P.Ed., has been appointed Professor of Materia Medica in the University of Edinburgh, vice Sir Robert Christison, Bart., M.D., resigned.

USEFUL PRESCRIPTIONS.

BY J. LEWIS SMITH, M.D.

Dyspepsia.—The following treatment has, in my practice, probably relieved nine-tenths of those cases of dyspepsia which were not due to organic disease :

℞. Bismuthi subcarbonatis... ʒij
Pepsini (vel Lactopepitini) ʒiss. Misce.

Divide in crustulas, No. xij. Signe :—Take one wafer before each meal, and twenty drops of the following in wine or water after each meal.

℞. Tincturæ nucis vomicæ,
Acidi muriatic ; (dilut)... āā ʒj. Misce.

In cases attended by constipation and eructation of gas, the following will be found useful :

℞. Pulveris carbon. ligni,
Magnes. calcinat..... āā ʒi
Pulveris rhei.....ʒij. ad ʒss. Misce.

S. Take half a teaspoonful to one teaspoonful in simple syrup or any convenient vehicle, three times daily. Of course, whatever the medicines employed, proper directions should be given in regard to the diet of dyspeptics.

The habitual constipation of infants is a common and troublesome complaint. It can sometimes be remedied when a wet nurse is employed, by the change from one nurse to another, and often by giving a little oatmeal one or more times daily. It is better to employ enemata of water, or water with sweet oil and molasses, for habitual use, than to employ the mildest preparations of those purgative drugs which are in ordinary use, and which produce catharsis by their stimulating or irritating effect upon the surface of the intestines, since the irritation which they cause is apt to impair the function of the gastro-intestinal mucous membrane ; or the intestines may become so accustomed to them that it will be found necessary to increase the dose in order to obtain the desired result.

The treatment which I am at present employing for a decidedly strumous child, aged four years, in the New York Foundling Asylum, indicates the manner in which, in my opinion, the habitual constipation of young children can be best overcome. When I commenced attending in this institution in May of the present

year, I was informed that this child, who had scrofulous inflammation of one of the joints, and a greatly enlarged and pendulous abdomen, from a lack of tonicity and action in the muscular fibres, seldom had a stool without the use of a cathartic or a clyster. The circumference of the body, measured over the umbilicus, was twenty-three inches, and the abdomen was soft and painless on pressure. The following prescription was ordered :

℞. Syr. calcis lactophosphat...1 part.
Olei morrhuæ.....2 parts. Misce.

S. Give two teaspoonfuls three times daily. Rub the abdominal surface three times daily with cod liver oil, making the inunction gently but firmly with the extended fingers.

From the day on which this treatment was commenced the abdominal protuberance began to subside, and stools have occurred regularly without further aid. In the ordinary habitual constipation of young children, I think that the muscular coat of the intestines needs stimulating to produce more active peristaltic and vermicular movements, and I know no safer and better way to produce this than by kneading and rubbing, just as we make the uterine fibres contract in parturient women. It insures more thorough manipulation if the nurse is directed to apply some kind of oil or other medicament.

Infantile Diarrhœa.—If a more active laxative is occasionally required I prefer the following :

℞. Sodæ phosphatis.....℥i.
Syr. calcis lactophosphatis℥iiss. Misce.

Give one teaspoonful, more or less, according to the age, as often as may be required. The two phosphatic salts, if properly prepared, dissolve without precipitation, and form a mixture, which is readily taken by the patient.

The treatment of this disease by small doses of calomel, combined with Dover's powder, has been very generally and properly discarded in New York.

℞. Tinct. opii.....gtt. xvj.
Bismuth. subnitrat.....℥ij.
Syr. simplic.....℥ss.
Mistur. cretæ.....℥ss. Misce.

Give one teaspoonful every three hours to a child of one year.

℞. Tinct. opii.....gtt. xvj.
Bismuth. subnitrat.....℥ij.
Pepsini (vel Lactopeptini).℥iss.
Syr. zingiberis,
Aq. menth peperit ..... aa ℥i.

To be administered in the same dose as the foregoing. In severe cases the dose may be given for a time every two or two and a-half hours.

I have observed decided benefit from the use of $\frac{1}{10}$th to $\frac{1}{6}$th of a drop of tincture of ipecacuanha, given to the infant in a teaspoonful of cold water, every hour or second hour, till the nausea ceases.

In certa n cases, in which the diarrhœa is not sufficiently controlled by medicines administered by the mouth, injections of $\frac{1}{10}$th to $\frac{1}{8}$th of a certain nitrate of silver, in each ounce of mucilage, will be found useful.—*Virg. Med. Monthly.*

Treatment of Migraine by Guarana.—True migraine, characterized by acute frontal pain commencing on one side, occasionally both, or going from one side to the other, usually lasting from twenty-four to forty-eight hours, with or without sickness, and relieved or cured by sleep, whether caused by wrong diet or not, will almost invariably yield to it. In young persons, not only does it cure each individual attack, but by persevering, the habit itself is broken. One cause of failure is the smallness of the dose, so that in many cases in which it has been tried before and failed, an increase of the dose has been followed by cure. Twenty-five grains for an adult female, thirty for a male, repeating in one or two hours, if necessary, is my usual dose.—*I. Hurd Wood, M.D., in British Medical Journal.*

Electricity in Inflammation.—G. E. Weisflog recommends the use of the fanadic current in the treatment of traumatic inflammation. It alleviates pain, lowers inflammation, and hastens absorption. The affected limb is placed in a water bath, into which one electrode is immersed, the other being applied to some healthy part of the body.

Translations.

Digestive Properties of Pancreatine.

Mrs.——, fifty-seven years of age, although of a good constitution, had been subject for a great many years to frequent attacks of erysipelas. The slightest cause was sufficient to bring on an attack. Various remedies, including the use of arsenic for more than a year, had given negative results. The condition of the patient was very miserable, for she was never certain, on retiring at night, that she would not awake in the morning with a face red, burning and swollen. It was remarked on several occasions that the attack, treated energetically at the start, by emetics and purgatives, was generally rendered milder and of less duration, and besides, that in the intervals the patient was troubled with pyrosis. We prescribed Dufresne's pills of pancreatine, four for a dose after each meal, without other treatment or change of diet. For five months, during which this treatment has been carefully followed, there has not been the slightest sign of erysipelas. Our patient has not enjoyed such good health for years. Recently an accident has confirmed, in a remarkable manner, the stability of the cure. From indigestion, the patient was attacked with vomiting and diarrhœa. Before the treatment with pancreatine, such an attack would certainly have been followed by facial erysipelas. On this occasion, not the faintest redness of the skin was seen.—*Dr. C. Girard in L'Union Medicale.*

Cutaneous Eruptions in the Course of Septicæmic Surgical Affections.

Upon the whole, we may, with M. Verneuil and several other writers, lay down this almost absolute law: Whenever after a surgical operation or a traumatic lesion there appears an extensive scarlatinal rash, or a generalized scarlatiniform eruption, there is great need to fear pyæmia. Whenever after a chill, even though very slight, supervening on a wound or operation, the appearance of this eruption is found, we may affirm that purulent infection has occurred with sufficient certainty to enable us to pronounce a fatal prognosis.—*La France Medicale.*

The Bromide of Lithium.

The bromide of lithium, which was introduced into therapeutics a few years ago, is a very estimable remedy with sedative and lithontryptic properties.

Owing to its richness in bromine, which amounts to 91·95 per cent., it is much superior to all the other bromides, and the 8·05 parts of lithia per cent. which it contains, are capable of neutralizing a considerable quantity of uric acid, seeing that one part of lithia neutralizes four parts of uric acid.

By virtue of this double action, which has been demonstrated in the Paris hospitals and in private practice, the bromide of lithium is indifferently employed in cases of nerve disturbance or in manifestations of the uric acid diathesis. Experience has, in fact, demonstrated its favourable effects in epilepsy, chorea, insomnia, hypochondriasis, and in the various forms of the uric acid diathesis, such as nephritic colic, gout, and diabetes.

In those affections accompanied with pain, as gout and nephritic colic, the bromide of lithium would exercise its lithontryptic action, as well as act as a sedative and allay the sufferings of the patient, in a short time.

Hence it is believed that the bromide of lithium is as valuable a remedy as we possess in therapeutics, and we do not know how to recommend it adequately.—*La Andalucia Medica.*

On the Therapeutic Employment of Oil of Lampreys; Petromyzon Fluviatilis.

Dr. Markonet has employed oil of lampreys in a large number of cases; this oil has the appearance of Provence oil, it is more fluid than cod-liver oil, has not so repulsive a flavour, and is better tolerated by the digestive organs. It promotes nutrition, having even a greater effect in this way than cod-liver oil. According to a quantitative analysis, it contains a little more iodine than the latter; which it might consequently take the place of it with advantage. The lampreys are captured in large numbers at the mouths of the rivers which empty into the Caspian Sea. Purified lamprey oil costs at Moscow eight times less than cod-liver oil.—*Lyon Medical.*

Treatment of Gleet by Medicated Bougies.

From *L'Union Médicale du Canada.*

In the Revue de Ther. Medico-Chir. the treatment of gleet by Reynal's bougies is very highly spoken of. These bougies are composed of gelatine and glycerine, medicated with sulphate of zinc, three centigrammes, and extract of belladonna, three centigrammes. They are six centimetres long, and in diameter, equal to thirteen or fifteen of Charriere's scale. They should not be oiled, but moistened, before introduction. The patient should micturate before using them. They take an hour to an hour and a-half to melt. In ninety-six cases in which they were used, all were cured, the average length of treatment being sixteen days. Some cases were of five or six years' duration, and had tried every method of treatment.

From *Le Progrès Médical.*

According to Montard Martin the lateral movements of the knee are not a sign of loss of the external ligaments, but point rather to destruction of the articular cartilages. On the other hand, the cartilages may be destroyed without there being grating on moving the joint.

Means of Arresting Hæmorrhage.

Hæmorrhages in general, and metrorrhagias in particular, whatever strictly be their proximate cause, are, as we know, very often difficult to suppress. Hæmostatics internally, astringent injections of all kinds, the tampon, etc., frequently fail. But a means which has succeeded with me in an almost infallible way, is the injection of hot water at 50° centigrade thrown directly upon the neck (of the uterus) by means of the tube of an irrigator removed from its caoutchouc canula.—*Le Progres Medical, from L'Union Medicale.*

Thin Pencils of Nitrate of Silver.—These may be prepared by fusing the nitrate in a capsule, and slowly drawing up the liquid by suction, into a glass tube. When cold, warm over a spirit-lamp and push out the pencil with a knitting needle.—*New Remedies.*

THE CANADIAN

Journal of Medical Science,

A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

To Correspondents.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor.*

TORONTO, AUGUST, 1877.

"THE BEST OF FRIENDS MUST PART."

Our autumn pruning will commence with the September number. To a good many of our readers this announcement will explain itself when they find that the August number of The Canadian Journal of Medical Science is the last *they* will receive until their accounts with the proprietors are settled. This applies especially to those who see the figures 1876 still after their names. Though separated from them for a time, which we hope will be but brief, we shall ever hold them in remembrance, and they must console themselves as best they can by sighing with Maud Muller for "what might have been." Delinquents sincerely, substantially, and seasonably repenting can have the missing numbers supplied.

THE MEDICAL COUNCIL.

We devote more space this month to the proceedings of the Medical Council than they really merit, but if we did otherwise we might be accused of prejudice.

Our readers can now judge of their value for themselves. One of our associates who tried to analyze them, declares that he found only four grains of wheat in the whole mass of chaff, or in other words, the Council did four things during its session of four days.

1st. It received the report of the Examiners.

2nd. It modified the curriculum on the recommendation of the Educational Committee.

3rd. It refused to register certain persons without examination.

4th. It erased a name from the Register.

And, yea verily! *we* find a fifth grain, which, although it looks very like chess, we are willing to count in, and as it is doubtless the personal experience of the Council, it may be regarded as a confession of past sins, the forerunner of repentance, and the harbinger of better things to come.

But we are glad *even to be assured* that the Council will "on all occasions, by exhortations and scientific explanations . . . . by their united and collective influence," endeavour to suppress the vice of intemperance.

We think a little personal example would have more influence than all their "collective exhortations." On the whole, we begin to regard the Council with more favour, and think we see evidence of improvement, the progress of which we shall not fail to chronicle.

It has been no pleasant duty to apply the caustic to the moral ulcer by which the harmony and the usefulness of the Council were being endangered. We have always felt a deep interest in the Council, and with all its faults we would be sorry to have it destroyed, and just because we desire for it a long life of usefulness, we have thus fearlessly criticised its doings and censured its misdeeds. But some of its members still indulge in impertinent twaddle about the schools swamping the territorial representatives, &c., making insinuations as uncalled for as they are unjust.

We can assure these gentlemen that if it were not for the few discreet men thus traduced, the Medical Council would very soon have shared the fate of the "cities of the plain" by the voice of an outraged profession.

However much the Council may have felt that Dr. Hodder was being unfairly thrust out of his position as representative of Trinity Medical School by Dr. Geikie, *they* were not called upon to engage in the fray.

To our mind their plain duty was to admit Dr. Geikie to the seat in the Council when he presented the proper credentials in due form, and then leave him and Dr. Hodder to settle their differences in their own way.

There was no use in saying that two men from the same school could not sit in the Council at the same time, for the law is very clear on that point.

We have no evidence to show that Dr. Hodder ever appeared in the Council after Dr. Geikie secured the appointment, and we believe that Dr. Hodder has too much self-respect to attempt to force himself into a position in which he had been supplanted. There is no doubt Dr. Hodder's age, position, and previous occupation of the seat would apparently have justified his re-appointment to it.

THE CANADIAN MEDICAL ASSOCIATION.

This Association, as will be seen by the advertisement, meets in Montreal, on Wednesday, September 12th. We hope that many in Ontario will avail themselves of the opportunity, and muster strongly. An association such as this, composed of members from all parts of the Dominion, assuredly deserves the hearty and active co-operation of those who think that any benefit accrues from the annual gathering and interchange of opinions of men who are working together in the same branch of science. Many important papers will be read at the ensuing meeting, and the discussion upon them should be of great interest. All ought to be willing to contribute their mite to the common fund of knowledge, as no one can practice our profession for any length of time without having experiences and difficulties upon which some light might be thrown, by comparing them with or adding them to those of others. Arrangements will be made with the various railroad and steamboat companies for the issue of tickets at a reduced rate, so that a pleasant holiday may be spent without great expense. Many of our readers are not members of the Association, but, we need only remind them that there is nothing to prevent their becoming members at the coming meeting, and taking part in all its proceedings.

PERSONAL.—Dr. F. Le. M. Grasett, of Toronto, has been elected Fellow of the Royal College of Surgeons, Edinburgh, and Fellow of the Obstetrical Society, Edinburgh.

Medical Council Examiners for the year 1877-8: Meteria Medica and Sanitary Science, Dr. H. H. Wright, Toronto; Anatomy, Descriptive and Surgical, Dr. Bergin; Medicine, Medical Pathology, Medical Diagnosis, Botany, Dr. Fowler, Kingston; Midwifery and Diseases of Women and Children, Dr. Workman, Toronto; Surgery, Surgical Pathology and Microscopic Anatomy, Dr. M'Laughlin, Bowmanville; Chemistry, Theoretical and Practical, Dr. Morrison, Newmarket; Physiology, Dr. Kennedy, Toronto; Medical Jurisprudence and Toxicology, Dr. Logan, Ottawa; Homœopathic Examiner, Dr. Morden, London. *Matriculation Examiners:* A. McMurchy, M.A., Toronto; Samuel Wood, M.A., Kingston.

PHOTOGRAPHS.—We have received from R. Berendsohn, of New York, photographs of Sir Astley Cooper, John Hunter, and Dr. Bright. Any one wishing to have pictures of these celebrated men will find those sold by Mr. Berendsohn good and cheap.

We have received a communication signed Ottawa, which has come to hand too late for insertion in this issue. We shall be glad to give it space in September, but in accordance with rules, must ask "Ottawa" to send us his card, not necessarily for publication, &c.

MEDICAL SCHOOL IN OTTAWA.—It is reported that a new medical school is to be started in Ottawa.

BOOK NOTICES.

Syphilitic Phthisis. By WM. PORTER, M.D., St. Louis.

Annual announcement of McGill University Faculty of Medicine. Session 1877-78.

Seventeenth Annual announcement of the Bellevue Hospital Medical College. Sessions of 1877-78.

Transactions of the 79th Annual Section of the Medical and Chirurgical Faculty of Maryland.

Report on Dermatology. By LUNSFORD YANDELL, M.D. Read before the Kentucky State Medical Society.

Reply to Dr. J. Marion Sims' Pamphlet, entitled "The Women's Hospital in 1874." By Drs. E. R. PEASLEE, T. A. EMMET, and T. G. THOMAS.

Recherches cliniques et therapeutiques sur l'Epilepsie and L'Hysterie Compte rendu des observations recueillies a la Saltpetriere, de 1872 *a* 1875. *Par Bourneville.*

The first part of the work treats of *L'etat de mal epileptique*, which is characterized by (*a*) the almost incessant repetition of attacks, often running in to each other; (*b*) collapse varying in degree, even to absolute coma without return of lucidity; (*c*) hemiplegia more or less complete, and fugitive; (*d*) frequence of pulse and respiration; (*e*) and especially by considerable elevation of temperature, which remains in the intervals of the attacks, and even increases when they have ceased. Full clinical notes are given of a typical case ending fatally. The second part is devoted to the therapeutic effects of ammoniated sulphate of copper, monobromide of camphor, ice, oxide of zinc, and nitrite of amyl, a number of cases being given under each remedy. The conclusions arrived at are that the copper gives negative results. The monobromide of camphor diminished the number of attacks, and is of most benefit in cases where vertigo is the prominent symptom. The application of ice had a beneficial effect, especially in cases where permanent frequency of the pulse, palpitations and precordial pains were present. Oxide of zinc diminished the number of attacks in half of the cases. Nitrite of amyl in five drop doses, by inhalation, warded off the attacks in a large number of cases of epilepsy and hystero-epilepsy. In one case no return of the disease had taken place after eight weeks; in another, after four months. Some of the cases were subject to attacks daily. The third part of the work is devoted to the study of two cases of hystero-epilepsy. The clinical histories are given very fully.

Communications.

To the Editor of the CANADIAN JOURNAL OF MEDICAL SCIENCE.

HARVARD SCHOOL OF MEDICINE.

BY WILLIAM OSLER, M.D.

It may be interesting to some of the readers of this JOURNAL, and instructive to those engaged in medical education in this country, to learn somewhat of the internal economy of what must be regarded as the most progressive medical institution on this continent.

A week spent in Boston in the spring of 1876, and another in April of the present year (when I had the company of my colleagues, Drs. Rose and Shepherd), have made the details of the work in several departments of the Harvard School of Medicine tolerably familiar, enabling me to speak, with some degree of accuracy, of the system there in vogue.

Up to 1871 the plan of education did not differ materially from that at other American schools—a winter session of four or five months, and an optional summer course; the requirements for a degree being no greater than at similar institutions.

At this date sweeping changes were made in the methods of teaching, the length of residence, and the examinations. I have been given to understand that, to a large extent, these measures were forced upon the Faculty by President Elliot in the face of a strong opposition, and, in the words of his report for '74-'75, "so rapidly were they enforced that not a few well-informed persons thought that the school would be killed outright." Instead, however, Harvard has since entered upon a career of educational prosperity which places her in a most enviable position among American schools, it being almost universally acknowledged that her degree, and her degree alone, carries with it the guarantee that the possessor has spent the proper time in the acquisition of medical knowledge, and that he has passed examinations which are thorough and searching.

Let us see in what the changes consist. Briefly, they are these:

1st. A greatly increased length of residence. The session begins on the Thursday following the last Wednesday in September, and continues until the last Wednesday in June, being divided into two terms with a vacation of a week between.

2nd. The course of instruction, extending over three years, "has been so arranged as to carry the student progressively and systematically from one subject to another in a just and natural order." The studies for the first year students are Anatomy, Physiology, and General Chemistry; for the second, Medical Chemistry, Materia Medica, and Pathological Anatomy, Clinical Medicine and Surgery; for the third, Medicine, Surgery, Clinics, Therapeutics, and Obstetrics.

3rd. Written examinations have been substituted for the oral, and students must pass in the subjects of one year before they can pursue those of the next. The above is an outline of the system of education now generally known as the *graded* system; one which is, no doubt, likely to be adopted by very many of the medical schools.

As was expected, a considerable reduction in the numbers attending Harvard followed the adoption of these measures; thus, while in '70-'71 there were 301 students, in '71-'72 there were only 203, in '72-'73 but 170, in the following session, 175, in '74-'75 the number rose to 192, in '75-'76 to 206, while there is an additional increase in the present session. The effect of the reduction in numbers upon the income was compensated for by the increase in the fees, which are now $200 for a year; so that while with 301 students in '70-'71 the income was only $22,717, in '74-'75, with 192 students, it was $36,661; and the last session the income exceeded the expenditure by $6,000.

The class of students has also much improved, owing to the increased standard demanded for graduation. In '70-'71 only 23 per cent. of those attending the school held literary or scientific degrees; in '75-'76 the number had risen to 42 per cent. An interesting fact since the new regulations were enforced is the striking reduction in the number of students from the British North American Provinces, chiefly Nova Scotia and New Brunswick; in '70-'71 ten per cent. were from the Dominion, but in '75-'76 only two per cent. Several Canadian students passed on to the New York schools,

while Dalhousie College keeps many Nova Scotians at home, and there has been a slight increase in the attendance of Lower Province men at McGill during the past four years.

On and after September of this year there will be a matriculation examination for admission to the school; another most important step, and one the results of which are looked forward to by Harvard men with some anxiety. To us in Canada this may appear strange, but it is the first time that any Medical University or School in the United States has sought to fix a standard of general education for the men who aspire to be her graduates. A reduction in the number of students is expected in consequence of it; and, to make provision against the possible diminution in tuition fees for the succeeding terms, the school has been husbanding its resources for the last three years. (Report '75-'76.)

We shall now refer briefly to the work in some of the departments. Anatomy is still presided over by Dr. Holmes—better known to us in his literary than in his professional capacity. I was not so fortunate as to hear him lecture, but attended a recitation, the equivalent of the weekly examination or "grind" of our schools. The subject was the cranial nerves, and the answering, for first year students, was creditable. I noticed, however, that very many names were called before a respondent was found, silence being apparently with them the "not prepared" of our students. The humour of "The Autocrat of the Breakfast-table" glanced out here and there, and enlivened the hour. Good sensible questions were put, but no special minuteness in answering seemed to be demanded. Anatomy is a first year subject only, but practical anatomy (till January) and surgical anatomy form part of the second year studies. From what we could gather it does not appear that the same attention is given to practical anatomy at Harvard as in the London or Canadian schools. It is on the time-table from 5 to 6 daily until May; and yet, at the beginning of the second week in April, the dissecting room was empty.

The surgical anatomy demonstrations by Dr. Cheever to the second year men were excellent and just what they should be. The examinations on this subject are by written papers. How, by the way, this most anomalous method of testing a man's knowledge on such an eminently practical subject as anatomy crept into the schools would be interesting to know. Happily, however, it is gradually yielding to the more rational system of practical examinations; and for this the profession has largely to thank the Royal College of Surgeons. We would earnestly commend to all medical teachers on this side of the Atlantic the consideration of examinations in anatomy as conducted by that corporation.

Physiology, under the care of Prof. H. P. Bowditch, received the attention that would be expected from such a well-known worker; his time being wholly devoted to the subject. In addition to lectures and recitations there are exercises called conferences, which form a feature of this school. For example, in physiology, a certain number of subjects are announced, chosen by the students, and essays prepared, which are read in due order before the class, and criticised by the Professor and students. Practical physiology is taught in the laboratory, and at my first visit I had the pleasure of seeing a class of students working out for themselves upon frogs the chief facts in the physiology of reflex action.

The method of teaching chemistry (Prof. Wood) appeared, from what we saw, to be specially adapted for medical students. In the first year, general chemistry is taught, and, to a very large extent, by laboratory work. Thus, while in both terms there are 36 lectures and the same number of recitations, 500 hours are also devoted to practical work. In the second year, medical chemistry is dealt with in the same way, and in the laboratory the urine and poisons are thoroughly studied. In this way sufficient time is devoted to the subject to enable the student to master properly the methods of analysis, thus making the teaching really effective. Pathological anatomy is well represented by that veteran pathologist, Professor Jackson, and Assistant Professor Fitz, upon whom the teaching mainly devolves. It is a second year subject, and occupies a much more prominent position than is usually given to it, there being lectures or recitations daily through-

out the session. Considerable attention is also paid to pathological microscopy, both medical and surgical. Autopsies are conducted in the *post-mortem* rooms of the Massachusetts General and the Boston City Hospitals. The new autopsy room at the former is one of the most perfect in the world. And here I would wish to acknowledge the extreme kindness of Dr. Jackson in demonstrating to us the noteworthy specimens in the Warren Anatomical Museum and in that of the Society for Medical Observation. To him it was evidently a labour of love, to us a time of much profit. It is a rare and truly pleasant thing to see combined in one man the enthusiasm that too commonly fades with youth and the ripe wisdom of old age.

Materia medica and therapeutics are divided; the former is a second year subject, and is taught largely, as in some of the London schools, by practical demonstrations; the latter is a final branch, and is taught by lectures. My time, I am sorry to say, did not permit me to see the working of this department.

The method of clinical teaching, both in medicine and surgery, is, in some respects, peculiar to the school. In addition to the ordinary bedside instruction and lectures upon cases in the theatre, there are what are called clinical conferences. Cases, either in the hospitals, or, as more frequently happens, to be visited at their homes, are given to the students for diagnosis and treatment; written reports of these are prepared, and are read before the class, to be criticised by the Professor and students. Many cases thus prepared are simply corrected by the Professor and handed back. Without doubt this forms an admirable method of exercising in the student the faculty of close observation, and for enforcing accuracy, since when a man knows that his report of a case will be subjected to close criticism, it tends to make him additionally careful. Nothing that I saw at Harvard pleased me more than the teaching of clinical medicine; it is scientific, thorough, and practical.

I regret that I cannot speak personally of the surgical teaching of the school. In obstetrics operative courses upon the cadaver, after the method practised in Vienna, have been introduced, and are very popular. Clinical instruction is also given in syphilis, otology, diseases of women, diseases of children, and in diseases of the nervous system, by specialists in these subjects.

By no means the least important of the many changes at this school is that in the manner of conducting the examinations, which is now by written papers, instead of by the short oral test, in vogue at most of the American colleges. Each student is given a number by the janitor, known only to that official, and, I believe, to the Secretary. This he appends to his answers to the examination papers, and when the lists are put up, he looks for his number. If figures equivalent to more than 50 per cent. of the total marks are against it, he knows that he has been successful. This is a very simple and efficient way, and obviates one serious objection to the principle of teachers in schools examining their own students. The following facts speak for the quality of the final examination. In '74-'75 thirty-eight candidates for the degree of doctor of medicine presented themselves, of whom eight were rejected. In '75-'76 fifty-six candidates offered themselves, of whom fifteen were rejected and five withdrew. It would be interesting to get similar data from the New York and Philadelphia schools.

It is a matter for surprise that some of the leading colleges in the United States have not followed the good example of Harvard. No doubt it would be accompanied for the first few years by a great falling off in the number of students, and consequent diminution in income, and this, in many instances, is avowedly the chief obstacle to so desirable a step. One or two of the smaller schools have adopted the graded system, and I see by a recent American journal that the University of Pensylvania has decided to pursue it, though in a modified and curtailed way. These are indications that the medical schools in the United States are being stirred up to some sense of the requirements and dignity of the profession they teach. It is high time. The fact that a Canadian student, after completing his second winter session (not even passing his primary), can go to the University of Vermont,* and, I doubt not, to many other institutions, spend ten weeks and graduate, speaks for itself, and shows the need of a sweeping reform.

* I mention this school because an instance, such as I refer to, came under my notice. The gentleman is at present a fourth year student of McGill College.

Meetings of Medical Societies.

COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

MEETING OF MEDICAL COUNCIL.

The Medical Council of the College of Physicians and Surgeons of Ontario met on the 3rd of July in the County Council Chamber. The President, Dr. Daniel Clark, took the chair at a quarter to three o'clock. He said their was nothing of great consequence to bring before them. All the members, he observed, had come up with the exception of one, and that one was prevented being there through sickness. They had, they were aware, been somewhat hurriedly removed from their rooms in the Mechanics' Institute building. The Government had, however, been seen, and they had offered the Council the use of the old King's College University. They will have the use of the building in about seven or eight months. While the deputation was interviewing the Government mention had been made of a new Anatomy Act, having for its object the supply of bodies from the gaols and other public institutions for the use of students. The want of subjects for the use of students had been greatly felt. While acknowledging the able way in which the proposed by-law had been drawn out, he had to say that in his opinion it would be far better to reduce the by-law very considerably in size. A few clauses would, he thought, be sufficient to cover the object intended. Besides, it would be better to make the clauses brief, as the subject was one which was not the most agreeable for discussion in the House. He had to state, moreover, that the question of Government aid had also been asked, and he (the President) thought if the matter were fairly brought before Parliament, a grant would be given to aid them in their Medical Examinations. The Veterinary College receives such aid, and aid to their institution would, he felt sure, be also granted. He had much pleasure in stating that the question of reciprocity between medical practitioners in this country and in Britain had been considered in a very friendly way by the Faculty on the other side. The Home Medical Faculty had evidently got to have a better estimation of the high standard of medical advancement in Canada. He (the President) had written to the Premier of the Dominion to bring the matter before the Home Government, and he had done so. It was safe to assume that the matter had been favourably discussed at home. This question had assumed a very favourable phase, and it was a pleasant duty he had in stating that the matter had turned out satisfactorily. He would add further that he was obliged to them for the support he had received during the time of his presidency.

On the roll being called the following members of the Council were found to be present :— Drs. Aikins, Toronto; Allison, Bowmanville; Berryman, Yorkville; Bethune, Glanford; Bogart, Whitby; Campbell, Toronto; Carson, Whitby; W. Clark, Guelph; Cornell, Toledo, Ont.; Edwards, Strathroy; Henderson, Strathroy; Henwood, Brantford; Hyde, Stratford; Irwin, Wolfe Island; Logan, Ottawa; McLaughlin, Enniskillen; Morden, London; Morrison, Newmarket; Miner, Merrickville; Ross, Toronto; Vernon, Hamilton.

The Council then proceeded to the election of officers, with the following result :—

President, Dr. D. Clark (re-elected); Vice-President, Dr. Campbell (re-elected).

On motion, it was agreed that the standing committees be the same as last year.

The motion was carried unanimously.

PETITIONS.

A petition was received on behalf of Dr. Geikie, enclosing certificate of charter from Trinity Medical College, and asking that he be admitted as a member of the Council to represent that College.

Dr. Berryman objected to the course taken, and moved that the petition be referred to the Credentials Committee.

Dr. Hyde thought it was entirely out of place to deal with the matter unless in the way pointed out by Dr. Berryman.

Dr. Clarke and others spoke on the same subject, upon which

Dr. Grant moved, seconded by Dr. Edwards, "That Drs. Clarke, Campbell, Morrison,

Bethune, McLaughlin, and Lavell do constitute a committee to examine the credentials which may be presented during our present session.

The motion was carried.

There were several other petitions received, which were referred to the proper committees to be dealt with in due form.

REPORT BY THE BOARD OF EXAMINERS.

Dr. WORKMAN'S report on behalf of the Board of Examiners was read. The document is a very flattering one in regard to the educational advancement of medical students. One clause reads as follows :—

The total number of candidates who presented themselves was 194, of whom 188 passed—45 as first year's men, 63 primarily, and 80 finals. The proportion subjected to oral examination was small.

NOTICES OF MOTION.

Drs. ALLISON, CAMPBELL, and BERRYMAN gave notices of motions. On motion of Dr. BERRYMAN, seconded by Dr. W. CLARK, a committee was appointed to draft a resolution of regret at the absence of Dr. Dewar.

EVENING SEDERUNT.

The President took the chair at eight o'clock.

The Secretary called the roll, after which

A COMMUNICATION

or petition was read on behalf of Dr. Forbes, lately from Pennsylvania, praying that all prosecutions against the said Dr. Forbes for practising in Canada without a license be suspended.

The petition was referred to the Credentials Committee.

REPORT.

Dr. LAVELL, Chairman of the Credentials Committee, gave in the following report :—

MEDICAL COUNCIL COMMITTEE-ROOM,
July 3, 1877.

The Committee on Credentials beg leave to report that they have had before them a certificate signed by Dr. N. Bethune, as pro-Dean, and Dr. W. B. Geikie, as Secretary of the Corporation of Trinity Medical Board, appointing Dr. W. B. Geikie as the representative of said Corporation to this Council, and being sure that Trinity Medical School is separate and distinct from the University of Trinity College, and not a part thereof, recommend that the said Dr. W. B. Geikie be admitted to a seat at this Council as such representative.

(Signed) Dr. LAVELL, Chairman.

Dr. BERRYMAN moved that the Council go into Committee of the Whole to consider the Report.

The Council therefore went into Committee of the Whole, with Dr. Macdonald in the chair.

Dr. BERRYMAN said that he moved the Council into Committee of the Whole so as to find out how the Committee could reconcile their recommendation with the circumstances of the case.

Dr. LAVELL, in order to satisfy Dr. Berryman, read a portion of the Act incorporating the Trinity Medical School.

Dr. MUIR then stated that the Executive of the Council had neglected the interests of the College of Physicians and Surgeons of Ontario in allowing such an Act of Incorporation to be passed. There is no saying where such multiplication of representatives will end. He would also point out that the voices of territorial representatives are silenced by the representatives thus introduced from Medical Schools.

Dr. D. CLARK said he considered the Executive had not fallen short of their duty in permitting the passing of the Act of Incorporation. Were they to go down to Ottawa and dictate to the Legislature what they shall or what they shall not do? He might now state that it would be a question whether Dr. Hodder has a right to sit in this Council Board without resigning his position in the Trinity Medical College.

Dr. CLARK, Guelph, said that Dr. Clark's remarks were all wrong. There could be no question as to the fact that they had been very negligent in not having the Council properly represented at the House of Assembly, and in failing to oppose the passing of such an Act of Incorporation. The fact is, they will be entirely controlled by representatives from schools soon to the exclusion of territorial representatives. While saying all this, he had no doubt of Dr. Geikie's having a right to sit at this Council Board; and he was of opinion that Dr. Hodder has also a right to be present as a representative from Trinity College. He regretted that such an Act of Incorporation had been passed, as he

will feel himself bound to support every application for an Act of Incorporation. He said he was no prophet, but he could plainly see that the precedent formed by this case will have an injurious effect on the Medical Council, in fact it will, he felt sure, have the effect of breaking it up as a Territorial Representative Assembly.

Dr. BERRYMAN said he rose in the place of an apologist. He was a member of the Executive, but he knew nothing of the Act, for he never saw it. He felt sure that the members of the Executive had been apathetic or negligent in allowing such an Act to be passed. It is too late now to protest against the Act, however. He felt sure that it was never intended that the Act should have such an effect. It was evident that the territorial representatives will be snuffed out; they cannot help it. Then the government of the Council will fall into the hands of the school representatives. He regretted that the thing had been done, but it cannot be helped. He had no doubt whatever but that Dr. Geikie will have a right to take his place at the Council Board. Dr. Hodder will also be entitled to hold his seat.

Dr. LAVELL said he could not see why Dr. W. Clark and Dr. Berryman should confound two ideas. Although, for instance, Victoria College Medical School got an Act of Incorporation, that would not entitle the teacher in the School to sit at the Council Board.

Dr. BERRYMAN said it would entitle such teacher to sit at the Council Board just the same as himself (Dr. Lavell).

Dr. LAVELL—Well, if it does, it must be admitted, however, that there cannot be two teachers of one Medical School representatives at this Council Board. In this way Dr. Hodder, since the incorporation of Trinity Medical College, cannot sit as a representative at this Council unless he resigns his position as a teacher. He said so with all due respect to Dr. Hodder, whose name came up only as a necessity. Besides, he did not see where the Council had suffered by the introduction of school representatives. As far as he was aware he thought that the school representatives had done good service since they came among them. Whatever they might say, the school representatives had helped the interests of the Council as much as the territorial representatives. He would again repeat that before Dr. Hodder can now take his place at the Council Board he must resign his position in Trinity Medical College.

Dr. ROSS, as a territorial representative, said he did not think there was so much chance of the territorial representatives being swamped by the school representatives. Indeed, he looked forward to the time when each territorial division shall have two representatives instead of one. Moreover, in the face of the Act of Incorporation, there cannot be two representatives from the one school.

In Section 8 of the Ontario Medical Act the following sentence deals with the point at issue:—

Provided always, that no teacher, professor, or lecturer of any of the before-mentioned colleges and bodies shall hold a seat in the Council except as the representative of the college or body to which he belongs.

Dr. BETHUNE, representative of Queen's College, Kingston, said that he did not think that the school representatives had in any way overridden the territorial representatives. He thought also that these repeated attacks on the Medical Schools came with a bad grace.

After some further remarks by Drs. GRANT, Hyde, Muir, and Edwards,

Dr. MUIR, as an amendment on the proposal to adopt the report, moved, seconded by Dr. Ross,

That one teacher of Trinity Medical School being already a member of the Council, that institution cannot, under the Medical Act, send another representative here.

The amendment was carried.

Dr. W. CLARK said that he had heard of a man named Moore, said to be a prosecutor of the Council, who had been going about the country imposing on people, and in one place he had gone off without paying his hotel bill.

Dr. LAVELL said it was too true about Moore. He had been doing the Council a great deal of harm, getting them into disrepute. He had even gone so far as to collect subscriptions to pay his expenses.

Dr. PYNE, the Secretary, said he had been annoyed with letters from this man.

The PRESIDENT said he had had letters from this man Moore also dunning him for money to

pay his expenses while going about attending to prosecutions, which, as a rule, fell through under his care.

It was ultimately agreed that the whole question be rigidly inquired into.

Re Dr. Dewar.

The Committee appointed to draft a resolution of regret at the absence and serious illness of Dr. J. F. Dewar, reported the following :—

That it is with great sorrow we miss our zealous and courteous colleague, Dr. J. F. Dewar, from his accustomed seat at this Council. We feel we lose in his absence much wise counsel and vigorous labour in the service of our responsible duties.

The report was adopted, and a copy was instructed to be sent to Dr. Dewar.

SECOND DAY—MORNING SEDERUNT.

The President took the chair at 10.25 a.m.

The Secretary called the roll, and read the minutes, after which

Dr. Geikie stood up and claimed his seat at the Council Board. His credentials, he said, were duly approved of, and he maintained he had a right to sit at the Council Board. He had nothing, of course, to do with the manner in which the action of the Council might affect any other person, but as far as he was concerned, he maintained he had a right to be present.

The President said that the motion passed last night did not mention the name of Dr. Geikie.

Drs. W. Clark and Lavell said that there could be no doubt the resolution of last night excluded Dr. Geikie from sitting at the Board.

Dr. Bethune, as one of the minority, said he did not care to move in this matter ; but he thought that they had excluded Dr. Geikie ; he thought that Dr. Hodder's position is changed. He is representative of Trinity College, not of Trinity Medical School.

Dr. Lavell moved, seconded by Dr. McLaughlin, "That the question of the right of Dr. Geikie to be present and sit at the Council Board be again opened up for discussion."

Dr. Allison moved as an amendment, seconded by Dr. Hyde, "That Dr. Geikie has no right to sit at this Council."

Dr. Edwards then moved as an amendment to the amendment, seconded by Dr. Aikins, "That Dr. Geikie cannot take his seat in this Council as representative of Trinity School, as Dr. Hodder, a teacher in that School, is now a member of this Council."

The motion was carried.

Treasurer's statement.

Dr. Aikins then read the treasurer's statement. The amount of cash intromitted during the year is $10,519 81. The balance on hand is $5,208 14.

On motion, the account was referred to the Executive Committee.

Dr. Berryman presented his motion, having reference to the amending of the Act for the proper registration of births, deaths, and marriages.

In presenting the motion, Dr. Berryman said that he would speak on it in the afternoon.

Dr. Campbell moved the reading of the By-law relative to the regulation of the proceedings of the Council, a second time.

The motion was carried.

Dr. Clark then moved, seconded by Dr. McLaughlin,

That the report of the Public Prosecutors, as well as all papers connected with the subject of other prosecutions, be referred to the following gentlemen as a Special Committee : Drs. Henwood, Ross, Logan, Macdonald, Hyde, Irwin, W. Clark, and Allison.

A letter to the President from Beatty, Chadwick and Biggar was read, demanding the admission of Dr. Geikie to a seat in the Council Board, and threatening legal proceedings in case of a refusal.

Dr. Hyde thought they had better take legal advice.

The President also thought they should consult their legal advisers.

Dr. Muir said he would second the motion of Dr Hyde.

After a remark or two by Dr. Bethune,

Dr. Muir said he thought they were forgetting the main point, viz., that it was sought to send two representatives from this school, and this must be prevented.

Dr. McLaughlin moved that the communication be laid on the table.

Dr. LAVELL seconded the motion.

Dr. GRANT thought that it would be better to take Dr. Geikie in as a member of the Council. He would therefore move, "That Dr. Geikie be this afternoon admitted to the Council and allowed to take his seat."

Dr. HYDE thought that such a course as Dr. Grant proposed would have the effect of placing the Council in a most humiliating position, and he was strongly opposed to it. They had taken a certain course yesterday, and they should uphold it.

Dr. W. CLARK said that no matter what the expense might be they should contest the matter, and see what the position of these schools was as regards the representatives from them. They had had a letter from lawyers before they had had time almost to discuss the matter thoroughly, and it was not to be supposed that this Council is to be bullied by any legal parties into doing anything which they have any doubt about.

The motion of Dr. McLaughlin, which was seconded by Dr. Lavell, was then carried.

THE RECIPROCITY QUESTION.

Dr. ALLISON, as intimated yesterday, moved his resolution regarding the reciprocity between British and Canada Medical Faculty.

The following is the motion :

That as the Medical Council of Great Britain at a recent meeting has signified its intention of conceding the principle of reciprocal medical registration between the Colonies and the Mother Country, the recognition of which principle is hailed by this Council as one fraught with mutual advantage to the two countries. That as soon as that body is empowered by Imperial Statute, and gives effect to the said statute by the passing of a by-law or otherwise, that upon this Council receiving due notice of which, the same reciprocal privilege will be accorded to the registered graduates and licentiates of the parent country, who may desire registration in the Province of Ontario on paying the usual fees. And that a copy of this resolution be forwarded by the Registrar, duly authenticated by the seal of this Council, to the Medical Council of Great Britain.

Dr. HYDE gave some explanations regarding the motion, on which

Drs. CAMPBELL, MCLAUGHLIN, LAVELL, AIKINS, &c., gave their views in regard to the question of reciprocity; these being in effect that the motion if carried would have an injurious effect on the Ontario Medical Council. The principal part of the discussion had special reference to the matter of registration, the Imperial Act of Great Britrin calling on the colonies to register all applicants who present themselves from the Old Country.

The PRESIDENT said there was one point they seemed to avoid reference to. They have an Ontario Act to guide them in the question of registration, and he would say that if any one would register under an Imperial Act while he had an Ontario Act to guide him he ought to be lynched.

Dr. BROUSE thought that the Medical Faculty here have a right to deal with their own educational matters independent of the Acts passed in Great Britain.

Dr. BETHUNE supported the views of Dr. Brouse.

Dr. Allison's motion was then put and lost by a majority of 21 to 3.

Dr. ALLISON then put the following motion :

That in consequence of the widespread feeling of dissatisfaction that exists among the members of the medical profession throughout the Province with the manner in which the medical examiners are annually appointed, it is hereby resolved that in future no member of the Council shall be appointed to that office, but that the appointment of the medical examiners shall be made from among the qualified members of the profession outside the Council; that five of the examiners be chosen from among the members of the College of Physicians and Surgeons in the territorial divisions who are unconnected with any of the teaching bodies or schools of medicine, and the remainder from among the said teaching bodies or schools of medicine, or other qualified bodies now or hereafter existing in the Province of Ontario.

After Dr. W. Clark had spoken on the motion it was put to the meeting and lost by 20 to 4.

Dr. W. CLARK thought it necessary that they should now have some place of their own to meet in. The County Council had been kind in letting them have their Council Chamber as a meeting place, but they could not always have this. He therefore moved, seconded by Dr. Grant,

That the Executive Committee be asked to

take steps to acquire either from the Government or from some one else, by purchasing or renting, a suitable place within which the Council can meet, subject to the approval of the Council.

The motion was carried.

THE REGISTRATION OF BIRTHS, ETC.

Dr. BERRYMAN brought forward his motion with regard to the amending of the Act regarding the registration of births, deaths, and marriages. He had reference especially to the fact that the doctors are liable to be fined for failing to comply with the requirements of the Act. But what he wanted more particularly to point out was the fact that grave-diggers had the power to take and bury bodies without any certificate. In this way the body of a person who may have been murdered could be buried without the matter coming to light.

Dr. BETHUNE thought that the law was very defective, inasmuch as bodies can be buried without any certificate. He thought also that a longer time should be given within which to register the death, forty-eight hours being too short, because in many cases it is necessary to bury bodies in a hurry. If the registry cannot take place before the body is buried the medical certificate will be sufficient to satisfy the registrar.

The discussion closed, it being close on six o'clock.

The Council then adjourned till 8 o'clock.

EVENING SEDERUNT.

The President took the chair at 8:15 o'clock.

The Secretary called the roll and read the minutes, after which the business of the Council was proceeded with.

THE PERIOD OF STUDY.

Dr. AIKINS asked the Council to consider the advisability of defining what was meant by the four years' curriculum for medical students. Did it mean forty-eight months or forty-two months after their matriculation in September or October?

The Council adjourned in order to allow the Committees to proceed with their work.

THIRD DAY'S PROCEEDINGS.

The Council met at 10 a.m. After the minutes had been read and approved of,

Dr. GRANT presented the report of the Committee appointed to draft a resolution setting forth the views of the Council on the use of alcoholic beverages. The report read as follows:—

"This Council feels that the excessive use of alcohlic beverages is decidedly on the increase in our midst. We, as representatives of the profession in Ontario, beg to assure the public that it shall be our constant endeavour, on all occasions, by our exhortations and scientific explanations of the danger of such excess, to suppress it to the utmost by our united and collective influence.

"C. H. GRANT, M.D.,
"W. H. BROUSE, M.D.,
"E. G. EDWARDS, M.D."

The motion was carried.

The PRESIDENT invited the members of the Council to visit the Lunatic Asylum and make an inspectien of its working. The Council decided to accept Dr. Clarke's invitation, and appointed Friday noon to make the visit.

The meeting then adjourned to allow time for the committees to meet.

AFTERNOON SESSION.

The Council met again at 2.30.

Dr. CORNELL presented the report of the Committee on Printing.

The report was received and considered in Committee on the Whole. It recommended the payment of several accounts, which were ordered to be settled, with the exception of a few which were referred to other committees.

Dr. AIKINS presented and read as follows the report of the

EDUCATIONAL COMMITTEE.

The report of your Educational Committee respectfully sets forth that after careful consideration it recommends as follows, viz.:—

First—That hereafter the matriculations be held on the first Tuesday and Wednesday after Good Friday, and the third Tuesday and Wednesday in August of every year.

Second—That in connection with the matriculation examination a note of warning be added that the examination includes writing

from dictation ; and further, that correct spelling and legible writing shall be indispensable.

Third—Matriculated students in Arts of any university in Her Majesty's Dominion will be exempted from passing the matriculation examination of the Council only when such university matriculation is equivalent to that of this Council.

Fourth—That botany be removed from the matriculation and placed in the second year's examination.

Fifth—That a three months' course of lectures on botany be required as heretofore.

Sixth—That until June, 1878, any pupil in his matriculation examination failing to pass on botany, but passing on all the other subjects, be not considered as rejected, but required to attend the course on botany and pass on it subsequently.

Seventh—That in the case of graduates in Arts, botany be not required where evidence is given that they have already attended a course of lectures and been examined upon it; and also, that theoretical chemistry be not required of such graduates if they produce evidence of having attended two full courses and passed an examination upon it.

Eighth—That, in the published announcement, page 13, item (b) first line, instead of the words "after this date" the precise date be inserted.

Ninth—That in the first year examination in the subject of anatomy, the bones of the head be omitted and that chemistry be limited to the metalloids or non-metallic bodies.

Tenth—That botany and the physiology of the First Year be added to the present subjects of the Second Year's examinations.

Eleventh—That descriptive anatomy as a whole form a part of the examination of the Third Year.

Twelfth—That instead of surgical anatomy, as at present, forming a part of the Third Year examination, medical and surgical anatomy be placed among the subjects of the Fourth Year examination.

Thirteenth—That at the annual examinations the percentage upon each subject required for passing be as follows :—First year, 33 per cent.; second year, 50 per cent.; third and fourth years, 60 per cent.

Fourteenth—That at the several examinations the examiners are hereby required to make their examinations as demonstrative or practical as possible.

Fifteenth—That at the examinations a period of not less than ten days intervene between the last written examination and the first following meeting of the examiners.

Sixteenth—That as soon as the Legislature has made such amendments to the Anatomy Act as shall have resulted in a sufficient supply of material being available for the schools, every candidate for the final examination be required to produce a school certificate that he has attended a full course of operative surgery on the dead subject; and also, another certificate to the effect that he has himself performed on the dead subject under the eye of his teacher all the ordinary operations in surgery.

Seventeenth—That as soon as abundant material is available for the Council a part of every student's final examination shall consist of dissections and operations on the dead subject.

Eighteenth—That a new Annual Announcement be published as soon as possible after the adjournment of the Council.

W. T. Aikins, Chairman.

The report was considered in Committee of the Whole, Dr. E. G. Edwards in the chair.

On the first clause, Dr. Aikins explained that a great difficulty arose from their being four matriculation examinations yearly, as was now the case. This clause was carried as well as the second.

On the third clause, Dr. Aikins stated that there were certain universities in which matriculation meant only the registration of one's name and the payment of a fee. For this reason they recommended the change. The clause was passed.

The fourth clause was made because it was found that botany was not taught in the Grammar Schools, so that students had no means of preparing themselves in this department.

Dr. Ross did not think there was any use of medical students learning botany.

This clause, as well as five, six, seven, and eight, were passed.

The Committee recommended the change indicated in clause nine, because it was found that the work of the first year was too much to be done efficiently. This clause, with those up to the fifteenth, were approved of.

Dr. Aikins said that clause fifteen was absolutely necessary. The time allowed for the examination of candidates' papers was far too small, and the papers could not be examined with any degree of accuracy.

Dr. Hyde considered that it was too long

and expensive to keep students for two weeks in the city waiting for their oral examinations after the decision of the examiners.

Dr. AIKINS replied that the change was necessary if they were going to raise the standard of medical education in Ontario.

Dr. MCLAUGHLIN gave as his experience as an examiner that at least fifteen days should be allowed for the examination of papers.

The clause was finally carried.

The remaining clauses were passed without discussion.

The Committee rose and reported, and the report was finally adopted by the Council.

The PRESIDENT read a summons from the Court of Common Pleas issued against the Medical Council to force them to give Dr. Geikie a seat at the Board as a duly elected representative.

The President, Drs. W. Clarke and Aikins were appointed a committee to take legal advice and determine whether it was advisable to contest the case.

The Council went into Committee of the Whole on the Finance Report, which was adopted with a few amendments.

In the consideration of the report the action of the registrar and Dr. Campbell in expending sums without the sanction of the President or Executive Council, was discussed, and met with the very strong disapproval of the Council.

Relative to the subject, Dr. W. CLARKE moved, seconded by Dr. BETHUNE, that the registrar be ordered to hand over all moneys received by him to the treasurer. Carried.

A communication was read from Mr. W. H. Howland, Chairman of the Hospital Trustees, as follows :—

DEAR DR. BERRYMAN,—The Toronto General Hospital Trustees have received the following large contributions towards building a fever hospital :—

W. Cawthra	$5,000
W. Gooderham, Sr.	5,000
Jas. G. Worts	3,000
	$13,000

They have also received smaller contributions something over $2,000, all of which and very much more have gone for improvements.

We have further received considerable support from the country municipalities, who have largely purchased our $50 tickets, allowing them to send in four patients for that sum. This is less than any hospital I know of, as we take all the risk of the patients remaining in a long time.

I trust the Medical Council will do us the honour of paying us a visit, in which case I should be very glad to explain to them several matters in which I think they would be interested.

W. H. HOWLAND, Chairman.

NOTICE OF MOTION.

Dr. BERRYMAN, seconded by Dr. MUIR, moved, That on hearing the communication read as sent to Dr. Berryman by W. H. Howland, Chairman of the Board of Trustees of the Toronto General Hospital, setting forth the improved condition of that institution by the munificent donations so lavishly bestowed on them, we cannot separate without recording our professional appreciation of such generosity on the part of private individuals—directed so nobly to the alleviation of suffering among our indigent poor. We sincerely trust that such noble efforts may, on proper representation to the Government of our Province, be seconded, as we think they should be, by increased grants from our public exchequer to maintain and increase in usefulness the various hospitals in our midst, at present striving to do much good with such small means at their command to accomplish a great work with but scanty encouragement from Government sources.

The Council adjourned till 8:30 p.m.

EVENING SESSION.

The President took the chair at 9:30 p.m.

REGISTRATION.

Dr. BETHUNE presented the report of the Registration Committee, on which the Council went into Committee of the Whole. Among other things it recommended that Messrs. Whiteford and Farley be not allowed to register.

The PRESIDENT stated that at the last session a Bill was introduced into the Legislature allowing all British medical graduates to practise here. He did not hear of the tenor of this Bill till the day appointed for the second reading. He believed that the Bill was introduced principally for the purpose of admitting to registration Messrs. Whiteford and Farley, who were

influential persons in their district. Dr. Aikins, Dr. Pyne, and himself, and others at once went to the House, but were informed that there was no hope in defeating the measure. A compromise was effected by the deputation agreeing to use their influence with the Council to admit the two gentlemen to registration without examination, unless that were a formal one. He (the President) admitted that they had done wrong, but pressed by the urgency of the occasion they agreed to the compromise, and the Bill was withdrawn. The Executive Committee could not be got together in so short a time, and the deputation had to act on their own responsibility. He had no objection to Messrs. Whiteford and Farley, who were both graduates of medical schools in Britain.

Dr. BROUSE was fearful that to admit these gentlemen without examination would be to create a precedent that would destroy the influence of the Council. It would be better to go back to the Legislature and fight them. He thought that what occurred in Philadelphia showed the necessity of the protection to the profession the Council afforded. He suggested that the President or some one else should plainly state the case to the two applicants, and if they were men of honour they would submit to a practical examination. To admit them without examination would be to open the door to any one who could command influence in the Legislature.

Dr. WM. CLARKE contended that the compromise should never have been made.

Dr. AIKINS said that the deputation did not pledge the Council to anything definite. They merely promised to use their influence with the Council to get them registered.

Dr. LAVELL said that these men were also graduates of McGill College, from which institution had come great opposition to the operation of the Ontario Medical Act. He was of the opinion that the compromise should be refused, and let the Legislature do what it pleased. If the public chose to be dosed by Tom, Dick, and Harry, why let them, and the Council would refuse to be responsible.

Dr. AIKINS said that he did not care what the Council did with the application. He had fulfilled his promise to Mr. Wells, M.P.

Dr. BETHUNE suggested that the clause in the report should read as follows :—"That the Committee cannot conscientiously recommend their registration without an examination."

This was agreed to, and the report then passed.

The Council adjourned.

Friday, July 6.

The Council met again at ten o'clock.

The Finance Committee presented their second report, which was carried.

The Prosecution Committee recommended the dismissal of a man named Moore, who had been prosecuting legally qualified men.

The Education Committee presented their second report.

The following clauses were adopted in Committee of the Whole :—

1. That graduates in arts shall be required to pass the first and second annual examinations, or may pass the third and fourth at the end of the third year.

2. Pupils who are or have been required by the regulations of this Council to go up for any annual examination, and who have refused or shall refuse to do so, shall lose one year for each such refusal.

3. That the written portion of the next professional examination commence in Toronto and Kingston towards the end of May, 1878, the precise date to be fixed by the President.

4. That the President make all necessary arrangements for properly carrying out the examination, and further, that he arrange that the questions submitted to candidates shall be printed and not dictated.

5. That hereafter no rebate shall be allowed to unsuccessful candidates at any of the examinations.

6. The primary examinations shall cease after July, 1877.

That attendance at a course of twenty-five lectures on Sanitary Science shall be required of every student, except such as have already attended two winter courses of lectures.

The Committee rose and asked leave to sit again.

The Council adjourned till two o'clock.

AFTERNOON SESSION.

The Council re-assembled shortly after two o'clock.

The Committee appointed to report on the visit to the Lunatic Asylum, reported as follows:—

That this Council would beg to tender its thanks to Dr. Daniel Clarke for the invitation kindly proffered to them to visit the Toronto Provincial Lunatic Asylum, thus affording them an opportunity of investigating the details of management of this important institution, and so much required for the treatment of safe-keeping of a large and unfortunate part of our community. We are truly glad to see that in the extent of its buildings—the costliness of its internal appointments, our Government has shown no niggard hand in attending to the comfort and possible recovery of this unfortunate class of our fellow-creatures. We must congratulate the Government on their selection for its Superintendent of our worthy colleague and President—a gentleman in whose hands such an important trust will be perfectly safe,—both from the high and scientific attainments which he possesses, as well as his great urbanity and kindliness of manner. We feel the more gratified in this our expression of feeling when we remember that we as a body were sponsors by our recommendation for his fitness for his responsible office. The Council would at the same time beg to express their feeling of thanks to our worthy President for his zeal and constant urbanity in his position of chairman of this Council for the past year.

The report was adopted.

The Council resumed the consideration of the second report of the Education Committee, and passed the remaining clauses with amendments. The effect of the clauses as amended was that several applications on behalf of certain persons to be exempted from examination be not entertained; that a committee consisting of the President, Drs. McLaughlin, Campbell, and Morrison be appointed to report to the next meeting on the whole subject of matriculation, having special reference to the Intermediate Examination of the High School, and that, when, through amendments to the Anatomy Act, sufficient material would be available for dissection, pupils will be required to give evidence of having twice dissected the whole body.

Dr. BERRYMAN moved, "That the Committee on Registration be requested to inquire by what right the Rev. Mr. Edgar, formerly a Primitive Methodist minister, was placed on our register." Carried.

Dr. AIKINS moved, "That a new register be published before the first of January, 1878."

Dr. BERRYMAN was authorized to forward to Dr. Dewar a vote of condolence passed by the Council.

The Council adjourned till 5:30 p.m.

EVENING SESSION.

REPORT OF REGISTRATION.

The Committee of Registration beg leave to report that it has examined all the papers in connection with the registration of the Rev. James Edgar, and we are quite satisfied that he had no right to registration, and that his name be removed from the Medical Register.

ALEX. BETHUNE, Chairman.

The report was received and unanimously adopted.

MOTIONS.

Moved by Dr. BERRYMAN, and seconded by Dr. WM. CLARKE,

That this Council has watched with great interest the active efforts put forth by Dr. W. Brouse from his seat in the House of the Dominion Parliament in connection with the organization of a bureau of statistics—we cannot too strongly urge on the Government the importance of this inquiry—all important to the public at large, and the medical profession from a sanitary and hygienic point of view, and to the Government especially for internal statistical purposes or national polity; we trust he may not flag in his onerous but important work. Carried.

COMPLIMENT TO THE MEDICAL COUNCIL.—A large number of the Council employed the noon recess in paying a visit to the Asylum, to which they had been invited by Dr. Clarke, the President of the Council, who is also the Medical Superintendent of the institution. The party were recived with great cordiality, and made the tour of the wards in both wings of the building. After the inspection, the visitors sat down to an excellent luncheon. The invitation was a graceful compliment from Dr. Clarke to the visitors in their professsional character. The whole party expressed themselves greatly pleased with the event, and acknowledged their sense of the kindness of Dr. Clarke.

Miscellaneous.

Benzoic Acid in Chronic Cystitis.—Dr. Mulhorn, in the *Medical and Surgical Reporter*, states that benzoic acid works like a charm in cystitis. He gives ten grain doses.

The deaths of Dr. Wilhelm Volkmann, one of the founders of modern physiology, and of M. Caventou, the discoverer of quinine, are announced.

Sticks of Sulphate of Copper.—Four parts of copper sulphate and one part of borax triturated are said to form a mass easily rolled into sticks. A drop of glycerine facilitates. —*New Remedies.*

Colchicin Hypodermically in Chronic Rheumatism.—Colchicin in doses of two milligrammes hypodermically has given satisfaction in cases of chronic rheumatism, rheumatic neuralgia, &c.

Malt Extract and Cod Liver Oil, mixed in equal parts, produce a perfect emulsion, semi-solid, in which the taste of the oil is more perfectly concealed than can be accomplished by any other method.

Use of the Stethoscope in Joint Disease.—In diseases of deep-seated joints where grating is not readily obtained, the auscultation of the suspected joint and of the corresponding sound one has been recommended as being useful.

Bugs.—The best remedy for bugs in hospitals is a bug trap, made by boring a series of holes in a piece of soft wood with a gimlet, and placing this under the mattress in each cot. The piece of wood is to be put periodically into a basin of boiling water.

Opium Antidotes, So-called.—An ana ysis of a number of opium antidotes, extensively advertised in the States as containing no opium, shows that morphia is a constant ingredient, in quantities varying from two to twenty-five grains to the ounce.

Extraction of Foreign Bodies from the Œsophagus in Children.—Place the child on its belly on a table with his head, supported by an assistant, projecting beyond it. The finger is then introduced into the mouth in order to depress the tongue, and the coin slides out along the finger of the operator.

Removal of Tracheotomy Tubes.—The blades of an ordinary pair of pharyngeal forceps are introduced closed, and acting as a probe, discover the situation of the tube. They are then passed into the lumen, firmly expanded, and equal pressure being thus established, the instrument is withdrawn, carrying the tube with it.

Mr. G. D. Thane has been appointed Professor of Anatomy in University College, London, for two years. Mr. Henry Smith has been appointed Professor of Systematic Surgery in King's College. Dr. Peacock has resigned the office of physician at St. Thomas's Hospital. Dr. Ord is the successful candidate for the vacancy, and Dr. Greenfield for the assistancy.

Extirpation of the Kidney.—Mr. Jessop, of the Leeds Infirmary, lately removed the left kidney from a child two years and three months old. The symptoms were hæmaturia and irritation of bladder, and rapid emaciation. A rapidly growing tumour was discovered in the left renal region. The incision was similar to that for colotomy, but longer. The kidney weighed sixteen ounces, and was eucephaloid in appearance. Eight days after the child was doing well.

Colonial Medical Degrees.—The project of registering colonial degrees involves the question of "reciprocity." The colonies re-examine men holding British qualifications before they are admitted to practise in those outlying provinces of Her Majesty's dominions. Until this practice prevails, we fail to see the perfect fairness of requiring that degrees granted by universities, over which the Medical Council of the home country has no sort of control, should be admitted as the sole ground of a claim to national privileges.—*London Lancet.*

Death from Chloroform.—A death from chloroform occurred at the Toronto General Hospital on July 18th. A woman, aged 25, was about to be operated upon for some uterine trouble, and but a few drops of the anæsthetic had been given when she suddenly died. She had taken chloroform previously and had no unpleasant symptoms. At the *post mortem* fatty degeneration of the right ventricle was assigned as the cause of death.

Tayuya; A New Remedy for Syphilis.—M. L. Faraoni, in a pamphlet published in the course of last year, states that Ubicini found in Brazil a tribe who suffered much from lues venerea, and who employed with success in this disease a plant having the local name of "tayuya." The plant (dermophylla pendulina) belongs to the family of cucuribitaceæ, and grows in the primeval forests of Brazil. The alcoholic extract of the root is the part employed, and it may be injected hypodermically in doses of fifteen grains. It is almost always successful, relapses are rare, and mercury and iodine are practically rendered unnecessary.—*London Lancet.*

Amended Scheme for an Examining Board for England, as accepted by the Conference of the Representatives of all the Medical Authorities in England, and submitted to the consideration of those authorities, May 1st, 1877.

Recommended.—1. That a board of examiners be appointed in this division of the United Kingdom by the co-operation of all the medical authorities in England—that is to say, the Royal College of Physicians of London, the Royal College of Surgeons of England, the Society of Apothecaries of London, and the Universities of Oxford, Cambridge, Durham, and London; it being understood that, liberty being left to such co-operating medical authorities to confer, as they think proper, their honorary distinctions and degrees, each of them will abstain, so far as allowed by law, from the exercise of its independent privilege of giving admission to the Medical Register.—"Section 1.—Note *a*. Hereby it is intended to secure that none of the qualifications granted by any of the co-operating authorities shall be conferred on any person who shall not have been examined and approved by this board."

2. That the board be constituted of examiners nominated by a committee called herein "the Committee of Reference," and appointed by the Royal College of Physicians of London, the Royal College of Surgeons of England, and the Society of Apothecaries, in such manner as they shall severally think fit.

3. That examiners be appointed to conduct examinations on the following subjects:—(1) Anatomy; (2) Physiology; (3) Chemistry; (4) Materia Medica; (5) Medical Botany; (6) Pharmacy; (7) Medicine; (8) Surgery; (9) Midwifery; (10) Forensic Medicine; or on such subjects as may be hereafter required.

Questions on Forensic Medicine are to be included among those asked by the examiners on Chemistry, Medicine, Surgery, and Midwifery.

4. That the appointments of examiners be apportioned according to a plan to be agreed upon by the three herein-before-mentioned medical authorities.

5. That the examiners be nominated and appointed annually; that no examiner hold office for more than five successive years; that no examiner who has continued in office for that period be eligible for re-election until after the expiration of one year, and that no member of the Committee of Reference be eligible for nomination as an examiner.

6. That the Committee of Reference consist of two representatives from each of the universities and medical corporations of England.

7. That one-fourth of the Committee of Reference go out of office annually, but that the retiring members be eligible for re-appointment, and that the proportionate number of members appointed severally by the co-operating medical authorities be always maintained.

8. That the duties of the Committee of Reference be generally as follows:—(1) To nominate the examiners for appointment by the three hereinbefore-named medical authorities. (2) To nominate on each occasion double the number of persons required to be appointed as examiners. (3) To arrange and superintend all matters relating to the examinations, in accordance with regulations approved by the co-ope-

rating medical authorities, or the majority of them. (4) To consider such questions in relation to the examinations as they may think fit, or such as shall be referred to them by any of the co-operating medical authorities, and to report their proceedings to all the said authorities.

9. That, except as hereinafter provided, there be two or more examinations on professional subjects; and that the fees of candidates be not less than thirty guineas, to be paid in two or more payments.

10. That every candidate who shall have passed the final examination conducted by the board shall, subject to the by-laws of each licensing body and to the provisions hereinafter contained, be entitled to receive the license of the Royal College of Physicians of London, the diploma of member of the Royal College of Surgeons of England, and the license of the Society of Apothecaries.

11. That every member of an English university who shall have passed such an examination or examinations at his university as shall comprise the subjects of the primary examination or examinations conducted by the board, and who shall have completed not less than four years of medical study, according to the regulations required by his university, be eligible for admission to the final examination; that every candidate so admitted to examination be required to pay a fee of five guineas; and that every such candidate, who shall have passed such final examination, shall, on the further payment of not less than 25 guineas, and subject to the by-laws of each licensing body, be entitled to receive the license of the Royal College of Physicians of London, the diploma of member of the Royal College of Surgeons of England, and the license of the Society of Apothecaries. "Sections 10 and 11.—Note *b*. Provided that if women be admitted to examination by the Conjoint Board they shall not, on passing, be entitled to become licentiates or members of any of the co-operating authorities without the special permission of such authority."

12. That any or either of the co-operating medical authorities shall be at liberty to withdraw from this scheme, and the joint examining board to be constituted hereunder, at any time after five years from the 1st day of October, 1877, upon giving to each of the other co-operating medical authorities one year's previous notice in writing, dating from the first day of October in that year, of their intention so to do, and that, at the expiration of the time limited by such notice, the medical authority giving the same shall be released from all obligation to conform to the terms of this scheme or any rules or regulations which may hereafter be made for giving effect to it.

Appendix to Scheme.—That one half of the fees received for the examinations be appropriated to the payment of examiners, and other expenses incidental to the examinations, in such manner as the Committee of Reference may determine, subject to the approval of the co-operating medical authorities. That the remaining half of the fees received for the examinations be appropriated in the following manner:—Towards the maintenance of the museum of the Royal College of Surgeons as an institution of national as well as professional importance, for its unendowed professorships, and other allied expenses, two-sixths; to the Royal College of Physicians in respect of qualifications to be granted, one-sixth; to the Royal College of Surgeons in respect of qualifications to be granted, two-sixths; to the Society of Apothecaries in respect of qualifications to be granted, one-sixth.

JAMES PAGET,
Chairman of the Conference.

May 1st, 1877.

APPOINTMENTS.

John C. Mitchell, of the village of Newtonville, Esq., M.D., to be an Associate Coroner in and for the United Counties of Northumberland and Durham.

His Honour the Lieutenant-Governor has been pleased to cancel the commission of Robt. McDonald, formerly of the County of Perth, now of the Village of Hagersville, Esquire, M.D., as an Associate Coroner in and for the said County of Perth.

His Honour the Lieutenant-Governor has been pleased to make the following appointment, viz.:—

Robert McDonald, of the Village of Hagersville, Esquire, M.D., to be an Associate Coroner in and for the County of Haldimand.

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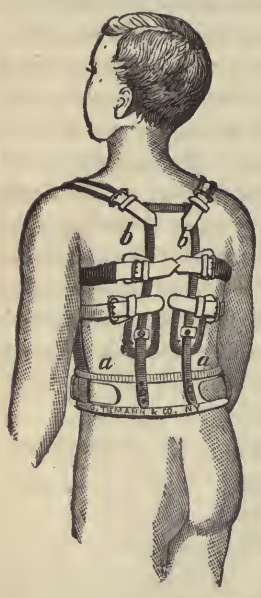

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TORONTO. SEPTEMBER, 1877.

Selections: Medicine.

THE MUSCULAR ARTERIOLES: THEIR STRUCTURE AND FUNCTION IN HEALTH AND IN CERTAIN MORBID STATES.

BY GEORGE JOHNSON, M.D., F.R.S.

LECTURE III.—*Concluded.*

Time would not permit, even if it were desirable, to enter into the details of treatment; but I am anixous to direct attention to one or two points of practice. It is a well-known fact that the inhalation of chloroform or ether vapour invariably puts a stop to uræmic convulsions, and often wards off an attack after premonitory symptoms, such as convulsive twitchings of certain muscles, have occurred. It has sometimes been supposed that the anæsthetic acts by relaxing the cerebral arteries; but an observation of Kussmaul and Tenner points to a different explanation. These experimenters found that, if animals are etherised, no convulsions occur when they are bled to death or when their intracranial circulation is arrested by ligatures. It appears, therefore, that the anæsthetic vapours prevent or stop convulsions by lessening the reflex excitability of the nervous centre.

The undoubted influence of repeated full doses of bromide of potassium, in warding off uræmic convulsions, is also probably to be explained by its soothing sedative influence on the nervous centres. The bromide is a very useful remedy for the painful muscular cramps which are of common occurrence in the advanced stages of all forms of renal degeneration. These cramps, which are especially frequent and severe in the lower extremities and during the night, are no doubt to be classed with the results of uræmic poisoning, and in not a few cases they are the precursors of more formidable nervous disorder. They may, in some cases, be entirely prevented by a draught containing twenty grains of bromide of potassium, with five grains of carbonate of ammonia, at bedtime.

No doubt, some of the many nervous disorders that result from uræmic poisoning are due to the noxious influence of the morbidly altered blood upon the nervous tissue, while others are more probably explained by sudden partial interruption of the blood-supply to certain parts of the nervous system. This statement may be illustrated by a reference to the two forms of impaired vision, which are very frequently associated with advanced renal degeneration. In one class of cases, dimness of sight comes on more or less gradually, affecting one or both eyes, and is permanent. This form of impaired vision is found to be asssociated with peculiar structural changes in the retina, results of the so-called *albuminuric retinitis.* In the other class of cases, the impairment of vision may be so sudden in its onset that, in a few minutes or even seconds, there is complete blindness, which usually passes away as suddenly as it came. These attacks of sudden and transient blindness may recur again and again. That they are closely allied to epileptiform attacks, is shown by the fact that they are sometimes immediately followed by general convulsions. The most probable explanation of this sudden transient form of amaurosis is that which attributes it to sudden anæmia of

the retina, or of the central origin of the optic nerves, the result of arterial contraction, excited by the morbid quality of the blood. It is, in fact, a form of circumscribed partial epilepsy, "epilepsy of the retina," as it is sometimes designated.

There are various forms of nervous disorder of uræmic origin which probably admit of a similar explanation: sudden and transient impairment of motor power or irregular spasmodic movements limited to a particular set of muscles; various disordered sensations in limited portions of the skin; sudden perversions of taste, or smell, or sight, or hearing, sudden impairment of speech, vertigo, confusion of thought, temporary mental excitement and delirium. One or more of these symptoms may occur singly or variously associated in different cases, the onset and the departure being often equally sudden. In explanation of these phenomena, Dr. Hughlings Jackson has, with much ingenuity, suggested that they may result from a sudden temporary interruption of the blood current through one or more branches of the cerebral arteries by spasm of their muscular wall; so that the brain tissue within a circumscribed "arterial region," having its nutritive supply arrested or limited, would suffer a suspension or impairment of its proper functions. Our increasing experience of the various forms of nervous disorder which may result from so purely mechanical a cause as embolism of cerebral vessels lends support to this theory. An arrest of the circulation through a portion of the brain involves immediate suspension of function in that part, with perhaps a disorderly action in subordinate or correlated parts. Thus, amongst other symptoms of nervous disorder, maniacal delirium, with mental illusions, and acute chorea have been found associated with, and probably have been directly caused by, mechanical plugging of minute cerebral vessels; the plugging being a result of embolic particles of fibrin detached from the so-called warty vegetations on a damaged cardiac valve. In like manner, sudden and complete blindness may result from embolism of the arteria centralis retinæ, partial and patchy blindness from embolism in one of its branches. The results of the mechanical plugging of vessels are thus seen to bear so strong a resemblance to those which are due to uræmic poisoning as to afford much support to the theory of arterial contraction as the immediate cause of some at least of the characteristic symptoms.

There is another class of cases in which the theory of obstructed circulation being the result of arterial spasm receives confirmation from the fact that very similar phenomena result from a demonstrable mechanical block of the same system of vessels. I refer now to the striking resemblance between the symptoms of cholera collapse and the results of embolism or thrombosis in the pulmonary artery.

It will be known to most of those whom I have the honour to address, that for a number of years I have maintained that the impeded circulation through the lungs, which obviously exists during the collapse stage of cholera, is explicable only on the hypothesis of abnormally energetic contraction of the pulmonary arterioles. And I now desire to direct attention to the very striking resemblance between the symptoms of choleraic collapse and those which have been observed in some cases of obstruction of the pulmonary artery by fibrinous clots.

I have reference to several cases of pulmonary embolism in which the symptoms bore a more or less striking resemblance to those of the collapse of cholera; but the most complete record of such a case is one which was published by Dr. Alfred Carpenter (*Lancet*, September 23rd, 1871). In that case, as Dr. Carpenter remarks, "the only symptoms wanting to make it apparently one of cholera were alvine discharges and cramp of the limbs." The symptoms actually noted, and which in the choleraic cases have very commonly been supposed to result from the dehydration of the blood by the intestinal discharges, were the following: blueness of the surface; icy coldness of the uncovered parts of the body; cold clammy perspiration; coldness of the breath; sinking of the eyes; feebleness of the voice; a feeble thready pulse; with quick breathing, excessive thirst, and almost complete suppression of urine, two ounces only of urine having been passed one day, and on another day less than two ounces. After death, the right side of the heart was found fully distended with dark-coloured blood,

while the left side was empty. The pulmonary artery at its origin was partially obstructed by a clot of fibrinous matter, which sent branches into the ramifications of the artery for several inches; these did not block up the passages entirely, but floated like semi-cylinders in the current. It is obvious that, if the trunk of the artery and its main branches had been completely obstructed, death must have been as instantaneous as in the case of cardiac thrombosis which I mentioned in the early part of this lecture; and it can scarcely be denied that the symptoms which resulted from this partial obstruction of the arterial trunk bear a striking resemblance to those of choleraic collapse. Such a case, therefore, may fairly be cited as evidence in support of the theory of arterial contraction being the main cause of the impeded pulmonary circulation during the collapse stage of cholera.

Again, it is not without interest to remark upon the very striking resemblance between the symptoms of choleraic collapse and a severe fit of spasmodic asthma. For the purpose of illustrating this, I will take Dr. Hyde Salter's graphic description of the asthmatic paroxysm. He says: "If the bronchial spasm is protracted and intense, the heat of the body falls; the oxygenation of the blood is so imperfectly performed, from the sparing supply of air, that it is inadequate to the maintenance of the normal temperature; the extremities especially get cold and blue and shrink. I have known the whole body deathly cold and resist all effects to warm it for several hours. But, while the temperature is thus depressed, the perspiration produced by the violent respiratory efforts may be profuse, so that the sufferer is at the same time cold and sweating. It is this union of coldness and sweat, combined with the duskiness and pallor of the skin, that gives to the asthmatic so much the appearance of a dying man. The pulse during severe asthma is always small, and small in proportion to the intensity of the dyspnœa; it is so feeble sometimes that it can hardly be felt." I scarcely need insist upon the many points of resemblance between these symptoms and those of cholera. What, then, is there in common between these two forms of collapse? Obviously not a drain of fluid from the blood, which was at one time looked upon almost universally as the main cause of choleraic collapse; not, I repeat, a drain of fluid from the blood, but a partial arrest of the pulmonary circulation. In both classes of cases, there is evidence of an impeded pulmonary circulation, the result of spasm of the muscular arterioles. In cholera, the arterial contraction is a primary result of the irritant action of the poisoned blood upon the vessels and the vasor-motor nerves; while in asthma the arterial spasm is a secondary result of a partial apnœa occasioned by primary spasm of the bronchi. Using the words asphyxia and apnœa in their strictly literal sense to express the pulselessness and breathlessness, we may say that in cholera-collapse there is a primary asphyxia, and a secondary apnœa consequent on the blood-stasis in the arterioles before it can reach the capillaries to be aerated. On the other hand, in asthma there is a primary apnœa caused by bronchial spasm which cuts off the air from the pulmonary vesicles, and a secondary asphyxia the result of arterial contraction.

In conclusion, sir, I venture to express a hope that the brief survey we have taken of some of the pathological phenomena with which the muscular arterioles and the vaso-motor nervous system are intimately and obviously concerned has not been without interest even for this learned audience, to whom I desire to offer my cordial thanks for the attentive hearing with which they have favoured me.—*Brit. Med. Journal.*

Ether and Ammonia Subcutaneously.—M. Verneuil injects ether as a powerful stimulant. In a case on which an operation had caused much hæmorrhage, and when the next morning the temperature had fallen to 92·3 in spite of brandy and other stimulants, ten drops of sulphuric ether were injected and repeated in half an hour. From this time there was a rally. M. Verneuil thinks ether or ammonia subcutaneously far preferable to transfusion, which latter operation he regards as dangerous notwithstanding its recent vogue. He would recommend this plan even in *post-partum* hæmorrhage.—*The Doctor.*

STARVATION IN THE TREATMENT OF ACUTE ARTICULAR RHEUMATISM.

BY CASEY A. WOOD, C.M., M.D., OTTAWA.

Since the advent of those two most excellent remedies in the treatment of rheumatism, salicylic acid and salicine, and the undoubtedly good results that have followed their use, it is not a matter of surprise, that one should feel inclined to regard any new remedy as undeserving of notice and unworthy of a trial; but there are cases in which these medicines have not realized the expectations of the physician, and where he is obliged to seek some other plan of treatment.

We will suppose for instance that after the patient has faithfully taken the requisite number of grains of salicylic acid in the proper doses and at proper intervals, and the disease has not yielded to its influence as was confidently anticipated; that perhaps the fever and acid perspiration are not sensibly diminished, and the aching joints are still as painful as ever; or it may be that the irritable stomach refuses to retain the nauseating doses poured into it and vomiting or diarrhœa is set up—the question must then arise in the physician's mind what is next to be done? Shall he go back to the old remedies and try alkalies, colchicum and opium, calomel and opium, or, devoid of faith in everything but his cherished "willow," shall he simply do nothing at all, and, following the treatment so very appropriately styled *expectant*, "wait for something to turn up."

It is for the benefit of such cases especially that this article has been prepared, and, while the flood of testimony in favour of the products of the willow allows me to claim for "starvation" only a place second to them in importance, yet it will be found in most cases of rheumatism to act quite as quickly and efficaciously as the former remedies. Without further preface I shall proceed to give a short history of a number of cases of acute articular rheumatism, in which total exemption from food of any kind formed the chief element in the treatment. These observations have extended over a number of years, and they are all selected for their typical nature, being the common form of acute rheumatism usually observed in the otherwise healthy adult. Special attention is drawn to the almost instantaneous action of starvation in almost every instance.

Case No. 1.—A. S., a retired gentleman of English descent, æt. 28, of full, plethoric habit and a *bon vivant*. Had a very severe attack of acute articular rheumatism. Treated by a physician with calomel and Dover's powder, and under this treatment became rapidly worse, the pain in his joints being so excruciating that he cried out with pain when any one approached too near him. On the fourth day changed both his doctor and the treatment. He was then ordered an antimonial emetic and to take ten drops of the following every three hours *while the pain continued to be severe:* Tinct. Opii f ʒij, Tr. Colchici f ʒ ss. Was also given, every three hours, a teaspoonful of the following mixture: ℞ Potassæ Acet ʒ ss Aquæ ʒ viii. Ordered to take no food whatever for seven days, after which he was allowed an oyster three times a day. On the eighth day he walked down stairs without assistance and entirely free from pain. The amount of food was now gradually increased until it reached the usual quantity.

He recovered perfectly from this attack and had good health for three years afterwards.

Case No. 2.—Pat K., pedler, æt. 34, of spare habit and very active, being much exposed to the weather. Had two previous attacks, treatment each time having lasted for twelve weeks. Fully determined this time not to have a physician nor to take anything in the shape of medicine. Was persuaded to starve himself for a week, at the end of which he was agreeably surprised to find himself totally free from pain. Took one tablespoonful of milk three times a day to begin with, and gradually increased this and his supply of food until a full meal was taken. It is known as a fact that he had no return of his trouble for at least three years after undergoing this treatment. This man (much to the disgust of the medical men in the neighbourhood) has cured several people in the country places where he plies his trade, by the same simple plan.

Case No. 3.—M. F., member of Parliament, a French gentleman, aged 58, short, stout, and

plethoric. Had a very foul tongue, high fever and sweats, and was perfectly helpless from the pain and swelling in his joints. An emetic being plainly indicated he was ordered to take one, but would not consent to do so as he said he was sure it would prostrate him too much, but had no objection to a cathartic. The difficulty was got over by administering three *grains of tartar emetic in a black draught.* Violent emesis, of course, ensued, which was blamed on his irritable stomach. Although very much prostrated by this powerful dose he was much relieved, the fever being reduced and his pain lessened. He was then given the same mixture as No. 1, and was completely starved for three days. On the fourth day was allowed an oyster and a poached egg, and on the fifth day half a pint of milk during the day and three oysters three times a day. On the sixth day he was almost well and allowed full diet. Has had no relapse.

Case No. 4.—E. R., æt. 50, tailor, thin and of nervous temperament. Two days before seeing him had got cold and wet whilst at work in a cellar. Gave a mild emetic, which relieved him.

It was found necessary to starve him for three days only. On the fourth day he was allowed two oysters and a little milk. Went to work on the sixth day and has had no relapse. His general health has improved since his recovery from the attack.

Case No. 5.—E. B., aged 60, a stout but active Englishman. This was his first seizure, it being of a very violent and typical nature. Swelling and acute pain in his knees and ancles, with high fever, foul tongue and profuse acid sweats: Gave him an emetic, but purposely omitted the opium and colchicum and the potash mixture, partly for the purpose of trying starvation pure and simple and partly because his pain was so soon relieved by the emetic and abstinence from food. Fasted four days and on the sixth day went to work as usual. Has had no relapse, and his health has been very good since.

I have notes on twelve more such cases in which the history of the patient, the duration of the disease and the immediate effect of treatment are very similar to most of those related above, and, were it necessary, I could give at least thirty more instances where this plan of treatment has proved equally successful, but for the purposes of this article I do not think it is required, as I merely wish to give an outline of the course usually adopted in ordinary cases of the acute form. I do not claim that in every instance this treatment will produce a certain cure, but so thoroughly am I convinced of its efficacy that I would not change it for the salicylic acid treatment, having had some experience of this drug, which I have tried in several cases, only to return to the old plan of starvation. I have seen its good effects in so many instances; in fact, relief has so invariably followed its use that I can almost positively promise a patient who consults me that he will be well again without fail within a week or, at furthest, two weeks after beginning treatment. I ask, can the supporters of any other treatment say more than that?

It might be objected that, in several of the cases reported, colchicum and opium with an alkaline remedy (acetate of potash) were given, that the treatment is only an old one slightly modified, and that the results obtained are directly traceable to these latter remedies and not to "starvation" at all. To this the answer is easy. The opium and colchicum are given merely for the temporary relief of the pain in the joints, and they are discontinued as soon as they have accomplished their object. The potash undoubtedly facilitates the patient's recovery, but all three are given as adjuncts only, for in cases 2 and 5 no medicine was given at all, and yet both patients made a remarkably quick recovery. Again, how many cases of acute rheumatism, even under the most favourable circumstances, recover in from six to ten days when treated by alkalies or colchicum and opium? It may also be objected that starvation can seldom be tried on the debilitated, the very young, or the very old. This objection is a valid one, but it fortunately happens that the disease is rarely seen in those under ten or over sixty. Total abstinence from food does not, as one might at first imagine, reduce patients suffering from rheumatism very much, nor do they, as a rule, object to it. I remember one case in particular where a female patient having been relieved in a very

few days by this plan, thought there could be no harm in having something substantial to eat, notwithstanding her physician's positive orders to the contrary. A good meal of beefsteak, vegetables, and ale was soon prepared, and as quickly disposed of; but I shall never forget the expression of sincere repentance that passed over her pain-stricken countenance as she promised her doctor next day that she would not transgress again, and offered to do without food for an indefinite period, if necessary, rather than suffer such another exacerbation as her indiscretion had brought upon her.

Upon the *modus operandi* of starvation in this disease I have very little to offer. From the quick and almost invariably good results to be obtained by simple abstinence from food, I am inclined to the idea that rheumatism is, after all, only a phase of indigestion, and that by giving complete and continued rest to all the viscera that take any part in the process of digestion the disease is attacked *in ipso radice.*

In most of the cases that I have been able to investigate I have found considerable digestive irritation to exist before the attack set in. Given a number of persons exposed to wet or cold in any shape, some of them will escape altogether, some will have simple coryza, others bronchitis, or perhaps pneumonia, but the malady that concerns us most is almost certain to be reserved for the one who is suffering from indigestion; the congestion that the cold or damp has caused, in each instance seems to search out the individual's weak spot, and, in the case of those seized by rheumatism, my observation, and the good results which rest to the digestive organs gives in the disease, lead me to the same conclusion, viz., that the real trouble lies in the irritated or irritable viscera.

In addition to the essentials of the treatment which I have spoken of in the five cases given, there might be added that *locally* wrapping the joints in cotton wool, and sponging the whole body twice a day with lukewarm water, will be found very soothing to the patient and will help recovery.

An emetic should be administered in almost every case, but it should not be given indiscriminately, and never when the patient cannot readily stand it. If given at all it should be an active one and antimonial, which, though somewhat depressing, is without equal for the relief that follows.

No food whatever should be taken after the emetic has operated for at least three days (longer if necessary), or until the pain in the joints has considerably subsided. Water or (if the patient prefer it) lemonade is allowed in small and repeated quantities, but starvation is to be regarded as a *sine qua non.* The return to the usual amount of food should be very gradual, and everything eaten during this time should be very digestible. Opium and colchicum are given for the temporary relief of pain, and should be discontinued when the desired effect is accomplished. The mixture of acetate of potash will be found useful, but it is not an essential part of the treatment. A pleasing feature of this method will be found in the rare occurrence of cardiac trouble. The treatment by starvation, if followed according to the rules laid down, will be found to realize all that has been claimed for it—a simple reliable remedy for a disease that has long baffled the physician's skill, and the frequency with which rheumatism occurs will give everyone a chance of trying its efficacy.

In making these statements it must not be forgotten that they apply to the acute form only, experience having proved that, when used in the chronic form of the disease, it exercises no marked remedial powers, and has no advantage over the remedies usually employed in such cases.—*Canada Medical Record.*

BELLADONNA AGAINST SCARLET FEVER.

Dr. J. C. Peters reported to the New York Academy of Medicine "three cases of scarlet fever occurring in one family, recovery taking place in each." To the fourth child in the same family belladonna was administered for the purpose of protecting him from the disease, but it was contracted notwithstanding, and was the only case in the family in which it proved fatal.

Dr. Peters remarked, that his experience in the use of belladonna as a preservation against scarlet fever had been large and unfavourable

In looking up the literature of the subject he had found that Hahnemann recommended $\frac{1}{3\,0\,0\,0\,0\,0\,0\,0\,0}$ of a grain of belladonna, stirred in a glass of beer or milk, as a preservative against the scarlet fever of Sydenham, which Sydenham himself declared would get well of itself, if not disturbed by the officiousness of meddling doctors. Against the scarlatina maligna, however, Hahnemann did not claim it to be preservative, but on the contrary regarded him as foolish who should so regard it.

[In one serious epidemic of scarlet fever, I employed belladonna very systematically as a prevention of anticipated attacks of the disease. I pushed the administration, in these cases, until I established the constitutional effects—dry fauces, dilitation of the pupil, and rash; the children thus treated, without exception, were my most marked and fatal cases.—E. B. S.] —*N. Y. Med. Record.*

A CASE IN PROOF OF THE NON-IDENTITY OF VARIOLA AND VARICELLA.

BY SEYMOUR J. SHARKEY,

Resident Assistant Physician, St. Thomas's Hospital.

Thomas B——, aged five years, left the scarlet fever ward of St. Thomas's Hospital on Nov. 22nd, 1876, where he had been under the care of Dr. Bristowe. In the same block, and on the floor above, there were, during the child's stay in the hospital, several cases of small-pox. Since his discharge from the hospital he had never felt quite well, but had suffered from headache, slight pain in the back, and anorexia. His friends brought him back on Nov. 28th, with a vesicular eruption upon him, which was said to have appeared first on the legs, though it was then most profuse on the abdomen and back. The child was stated never to have had chicken-pox, and never to have been vaccinated, and there were no marks of vaccination upon him.

On admission, the eruption was not well enough developed to make a certain diagnosis between varicella and variola, and he was therefore isolated in a small ward on the same floor as the small-pox wards. Soon, however, the disease showed all the characters of varicella, and was pronounced to be so by Dr. Risdon Bennett and by Dr. Bristowe. The patient was then removed to the floor below, and during the next few days fresh crops of vesicles appeared, which were vesicular from the first, had no induration around them, and dried up rapidly.

As small-pox was rife in London, and there were cases of the disease in the block, it was thought advisable to vaccinate the child at once. This was done in four places on November 30th. Four very fine vesicles resulted, which ran their normal course at first, but the areola was never properly developed round them. On December 7th—that is, on the eighth day from vaccination—the child became very restless, his sleep was much disturbed by dreams and apparitions; he had pain in the back, vomited several times, and was feverish. The vomiting was frequent and violent on the following day, and on the 9th of December a few papules appeared on the face, then on the arms; and on the 11th the face, arms, legs, back, and abdomen showed a profuse crop of papules which were clearly the early eruption of small-pox, the scabs of varicella being still present. The primary fever was very considerable, the temperature reaching 105° F., but as soon as the eruption appeared it dropped to 99°. The eruption developed in the ordinary way, and secondary fever of moderate intensity set in early, as shown in the temperature chart. The eruption was profuse, but not confluent. Convalescence was very tedious, and was interrupted by an enormous hard swelling on the left side of the neck beneath the lower jaw, which appeared to commence in the lymphatic glands, and subsequently suppurated. The child recovered, however, and was discharged from the hospital on February 10th, 1877.

This is a case of considerable importance, and one that should be put on record, and the paper recently read by Dr. Farquharson before the Clinical Society has led Dr. Bristowe to give me permission to publish it at once. It places beyond doubt the non-identity of varicella and variola, and shows that vaccination does not prevent the incubating poison of small-pox from producing a well-developed attack of the diseases, although eight days have elapsed from the time of the operation. It also shows that

an individual may harbour at the same time the poisons of two infectious diseases, or at any rate the poisons of varicella and variola, each of which shall in due time produce a well-marked attack of the disease in which it originated. For, if we take twelve days as the usual period of the incubation of small-pox, and ten and sixteen days (Bristowe) as the extremes, the patient in question must have been infected by the poison of variola either when the eruption of varicella was out or during the time of incubation of that disease.—*London Lancet.*

DIALYSED IRON.

A preparation of iron has been recently introduced. It consists of the peroxide of iron in the colloid form held in solution in a small body of water: it is, in fact, a *soluble hydrate of iron.* It contains no trace of acid, the equivalent of acid being replaced by the equivalent of water by diffusion (dialysis). This preparation is the nearest approach to the form of iron contained in the blood, and as it has no irritant properties it will doubtless prove to be the most valuable of all the forms in which iron can be administered. We have already given the preparation an extensive trial. Although a strong solution, it has scarcely any taste and is taken readily by children. It does not constipate nor disturb the digestion, whilst at the same time it produces all the good effects we are accustomed to recognize from iron in the other forms in which we have been accustomed to administer it.

The *solution* may be given in doses similar to the muriated tincture, that is, ten to fifteen drops, or for children, about five drops. It may be given before meals, as it does not irritate the stomach.

It cannot be mixed with ordinary hard water, which causes it to flake or gelatinize, but it may be taken in distilled water or dropped on a piece of sugar. Not the least advantage of the dialysed iron is that it can be brought into contact with the teeth with impunity. It may be given with equal effect in the form of a *pill*, each pill being equal to ten drops of the solution, or as a *lozenge*, equal to two drops of the solution.—*Phil. Med. Times.*

Surgery.

TREATMENT OF RETENTION OF URINE.

BY JAMES L. LITTLE, M. D.,
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I have selected this subject because it is one that interests the practitioner of medicine as well as of surgery; both being often suddenly called upon to afford relief to a patient suffering from the agonizing torments resulting from a distended bladder. This, when successfully relieved, gives satisfaction both to the physician and to the patient, and is not equalled by anything which comes under our observation, except it be the mother who has just expelled her first-born after a tedious labour, without the benefits of an anæsthetic.

The treatment of retention depends, of course, to a great extent on the cause of the difficulty.

Retention caused by irritation of parts in the vicinity of the bladder, as, for example, an acute attack of, or following an operation for, hæmorrhoids; or retention due to overdistension of the organ from neglect to pass the urine; or from the absorption of cantharides, or when it occurs during typhoid fever, paralysis, and other diseases, is easy of treatment.

The introduction of a silver or rubber catheter, of full size, is generally accomplished without difficulty. These cases do not call for any special remarks, except mentioning the one rule to be always borne in mind, namely, to use a full-sized instrument, say No 12, if it can be readily introduced into the external meatus, for large instruments always pass through the urethra into the bladder with more ease than those of smaller size. But when the retention is caused by mechanical obstruction, such as stricture, or enlargement of the prostate gland, the treatment is one that taxes all the resources of the physician or surgeon. The patient must be relieved; his sufferings are unbearable; his urine must be drawn off; no time must be lost, or serious, if not fatal, consequences will ensue.

It is well known that a patient who has a narrow stricture will go about for months and even years, passing his water in a small stream,

* Read before the Vermont State Medical Society.

with considerable exertion, never emptying his bladder completely, and still not suffer from retention. But such patients are liable after a "bout," or sometimes by simply taking cold, suddenly to find themselves unable to pass their water. Warm baths and hot fomentations may in some cases afford relief: but as a rule, when such patients call for their doctor, the bladder is so distended and the suffering is so severe, that instrumental interference is necessary.

The age of the patient, and a few words of his previous history, will at once enable the physician to suspect the existence of stricture. The introduction of a full-sized silver or flexible catheter, will enable him to determine positively the presence, as well as the locality, of the stricture.

If he fail to reach the bladder, it is a good plan to tell the patient to stand up and, making some pressure on the stricture, suddenly withdraw the instrument, telling the patient at the same time to make an effort to urinate. This little procedure, which was first recommended by Sir Benj. Brodie, I have seen succeed in many cases where I have been unable to introduce even the smallest instrument. If this fails, the next sized catheter should be tried, and then the next, until we reach the smallest size. These failing, recourse should be had to the small, conical bougie—*French*. And here let me say that, as a rule, the small French olive-pointed bougie is much more readily passed through a stricture than the sharp-pointed ones, which are so liable to catch in the lacunæ or on the sides of the stricture. These should be carefully introduced, and if the stricture is passed, on removal of the instrument the urine will follow. The urine will often flow alongside of the instrument without withdrawing it, if the patient is instructed to strain.

If the stricture is small, and passed after great difficulty, it is always advisable to try and have the water pass in this way, and then to secure the bougie and let it remain in the urethra if possible for twenty-four hours, or even longer, if it produces no irritation. This is what Thompson calls continuous dilatation, and will often allow a bougie two or three sizes larger to pass in after withdrawal.

It might be well to state here, that it is good practice to inject with a long-nozzled syringe, or through a gum catheter, as much sweet oil as the urethra will hold, before the introduction of the bougie.

In the majority of cases, the above treatment, if carefully pursued, will enable the surgeon or physician to reach the bladder, and thus relieve the patient.

I might state that on several occasions when unable to enter the bladder, I have succeeded in causing the patient to urinate by injecting a stream of warm water against the stricture through a gum-elastic catheter, with the extreme end cut off.

If we do not succeed in relieving the patient after a fair trial of the above means, we should at once resort to the aspirator. Here we have a sure and safe means for relieving the patient.

A small needle should be introduced a little above the pubes, after a small nick is made through the integuments, and by means of the aspirator the urine can be withdrawn.

In cases of stricture it will be seldom necessary to use this instrument more than once, a bougie readily passing through the stricture in a short time after the bladder has been completely emptied.

. . . . .

I had a case in St. Luke's Hospital where it was found impossible to pass a bougie until the bladder was emptied by the aspirator, and then the instrument was passed without difficulty.

From these results, I infer that emptying the over-distended bladder by aspiration relieves the congestion of the mucous membrane covering the stricture, and in that way permits the introduction of the bougie.

I have made up my mind hereafter to resort to the aspirator early in all cases where I am unable to completely empty the bladder by the urethra, or where I have difficulty in passing the stricture; using it, however, only when the bladder is full of urine.

Puncture of the bladder by trocar through the rectum, or above the pubes, should only be resorted to when it is impossible to obtain an aspirator; and in choosing between these operations, I should certainly prefer puncturing with a small-sized trocar and canula above the

pubes. This has been done with safety, and if the instrument used be small, it seems to me no harm can result; and it is easier and more comfortable to the patient than puncture by the rectum.

A few words in regard to the use of medicinal means. Diuretics should be avoided as they only increase the difficulty. Large doses frequently repeated of the mur. tinc. of iron, say 25 drops every half hour, were frequently resorted to with good results, in the New York Hospital while I was Resident Surgeon. The warm bath, warm fomentations, etc., have a relaxing effect, and are often serviceable.

RETENTION DUE TO ENLARGEMENT OF THE PROSTATE GLAND.

In about 12 per cent. of men living after the age of fifty, obstructive enlargement of the prostate gland takes place. In many cases this enlargement will go on without giving the patient much trouble, excepting that he passes his water much more frequently than he did at the age of thirty. Now, although he may pass his urine more frequently, it is well known that such patients rarely empty their bladders completely, a certain amount of urine, called "residual urine," remaining in the bladder. A patient in this condition is liable at any time to an attack of retention, and the surgeon or physician may be called in to afford relief. The age of the patient and a digital examination through the rectum enables us to make our diagnosis.

In many of these cases the silver catheter with the usual curve will fail to enter the bladder, being arrested at the entrance by the enlargement of the prostate, and we are called upon to use an instrument with a large curve. This should be used with great gentleness, especially when the point of the instrument is passing over the enlarged prostate. Force should never be used, for fear of injuring the prostate and giving rise to hæmorrhage into the bladder, or setting up an attack of cystitis; for as long as we can prevent inflammation of the bladder, our patient can be kept comfortable. When cystitis once begins in a patient with enlarged prostate, it rarely ever entirely disappears.

When retention takes place it generally lasts several days, and requires the frequent use of the catheter. At least three times in the twenty-four hours the instrument should be introduced, and I know of no better way of overcoming an attack of retention in these cases than to teach the patient to introduce a soft rubber catheter, and direct him to empty his bladder, say every three or four hours, without making any effort to pass his urine in the natural way, and not waiting until he feels like passing it. After following out this treatment for a day or two, he then may try to pass it without the instrument, and he will generally succeed.

Where great difficulty is encountered at the entrance of the bladder with the silver instrument, Mercier's catheter may be tried, but I have found no trouble so far in introducing the flexible soft rubber instrument. Well oiled and gently introduced it passes along the urethra without producing much pain, and patients can readily learn to use it without danger of injuring themselves.

I will at this point call attention to the paper of Dr. Van Buren, of New York, on "Plea for the Treatment of the Consequences of Obstructive Enlargement of the Prostate by Early Use of the Catheter," published in the *New York Medical Journal* for July, 1874. In this paper he advises that in order to prevent the serious consequences which arise from obstructive enlargement of the prostate, the patient be taught the use of the catheter, and then give up emptying his bladder in the natural way, relying entirely upon the catheter during the remainder of his life. In that way patients with this disease can go on (he says) for years without trouble. One case he quotes of a man of seventy, hale and hearty, who had used a catheter three times a day for thirteen years. Another case where it had been used twenty years.

Other instruments have been invented for entering the bladder easily in cases of this kind: *Squire's* vertebrated catheter, Mercier's silver and gum catheter combined, etc. In cases where it is impossible to get in an instrument, the aspirator may be resorted to.

The rough use of the catheter in these

cases of retention is frequently the cause of the cystitis which makes the remainder of the patient's life truly miserable, attacks of retention taking place more frequently, and the introduction of any instrument, excepting the soft rubber catheter, frequently aggravating the difficulty. When cystitis has taken place, carefully washing out the bladder, so as to remove the decomposed urine mucus and pus, together with diuretics to dilute the urine and render it less irritating, are the chief indications for treatment. The old way of washing out the bladder through the double catheter, has been superseded by a much more convenient and less painful plan.

For internal treatment I have found the infusion of triticum repens, one ounce to the pint, with gaultheria leaves, to answer a good purpose. Balsam of copaiva in emulsion, 15 to 20 drops, will often act like magic in clearing up the urine, and the old prescription of henbane and liq. potassae is also worthy of trial. Fl. ext *hydrangea*, in half drachm doses three times a day, is also of great service.

Drachm doses of fl. ext. ergot or hypodermic injection of ergotine have also been recently highly recommended.—*The Hospital Gazette.*

CLINICAL LECTURE ON SOME CASES OF DISEASED KNEE-JOINT.

BY S. MESSENGER BRADLEY, F.R.C.S.,

Surgeon to the Manchester Royal Infirmary; Lecturer on Practical Surgery at Owens College, etc.

The cases before you are examples of some of the most common, but important, diseases of the knee-joint, viz.: simple synovitis, suppuration within the joint, abscess in the immediate neighbourhood of the articulation, ulceration of cartilage, articular osteitis, and pulpy degeneration of the synovial membrane and adjacent structures. That is to say, we have instances of disease affecting each, and in some cases all, the structures which enter into the formation of the joint; and, in forming an opinion upon any case of diseased knee, this question of site is a very important one. Indeed, *situation* and *diathesis* are the two most important matters to be decided; thus, *e.g.*, in this case of simple synovitis, the *situation* of the disease, revealed by the shape of the affected joint, at once establishes the fact that there is effusion *into* the joint; a little further examination shows that the bones, and cartilages, and ligaments are unaffected, and that the synovial membrane is the sole seat of disease. Then, regarding his general appearance of health, his strong even teeth, his healthy skin, we rapidly decide that here is a man free from any special *diathesis;* and, these two points decided, we at once conclude that this case of simple synovitis in a healthy subject will, with proper treatment, shortly be cured, and the joint be perfectly restored to its *status quo ante.* How different would the prognosis be if the same disease, caused in the same way, occurred in this strumous lad. It is highly important, indeed, that you understand that all, or almost all, the diseases here illustrated may occur in an otherwise healthy subject; or, on the other hand, may be associated with a rheumatic, gouty, syphilitic, or strumous habit—when it becomes a much more important matter to treat the general diathesis than the local manifestation thereof. In the rheumatic, or gouty, or syphilitic habit, after such general treatment, you may hopefully proceed to any operation upon the joint itself deemed necessary; but, in the strumous, you must proceed more cautiously, and in regard to one operation, I mean excision, you are, in my opinion, not justified in resorting to it at all.

Let us now examine these cases a little in detail.

This little humpbacked man is evidently of strumous habit, and has suffered at some time or other from caries of the dorsal spine. He was admitted into the infirmary with a large and painful right knee, the leg bent at right angles, but not ankylosed. There is manifest effusion into the joint, and some of the fluid removed with the aspirator we found to be purulent; yet, although we have here suppuration into this great joint, and the man is of so unfortunate a habit, there is wonderfully little constitutional mischief; the temperature is normal, the pulse is quiet, and the tongue is clean. What is to be done? Constitutional treatment, of course, "goes without saying"; but locally what must we do? I believe the

best treatment here is to make an incision four lines in length along the inner border of the patella, and then, by means of a Higginson's syringe, to distend the joint with a solution of carbolic acid in water (1 to 30), according to the plan suggested by Callender for the treatment of abscesses. Having done this, seal up the small wound with collodion (no drain-tube being inserted), and put the limb on a back splint. I have found this plan succeed in such cases, and it is certainly always well worth trying; for the alternative of freely laying open the joint, with the hope of securing ankylosis in the straight position, is not only a much more formidable procedure, but also not in the least more likely to succeed than the simple method of distension. If either or both these plans fail, and fail they often do, then, in my opinion—reasons for which I will give you more fully by-and-bye—you have only one alternative, and that is amputation; excision being an unjustifiable operation in such cases.

The next case to which I draw your attention is one of abscess in the cellular tissue about the joint, and was sent into hospital as one of disease of the joint itself; but that such is not the case, I will proceed to show you. First, you perceive there is no *effusion* within the joint, by the absence of the characteristic swelling beneath the subcrureus or by the sides of the patella; next, the movements of the joint being quite normal and painless, you infer that the ligaments are unaffected; the bones do not in any way differ from those of the opposite side, nor is there any pain on squeezing the femoral condyles or tibial tuberosities, or on forcing the patella backwards, nor does the patient suffer nocturnal exacerbations, whence we conclude that the articular ends of the bones are sound; on pressing the articular surfaces together, no grating sensation is produced, by which we know the cartilages are intact. In a word, all the main joint-structures are healthy; and this fluctuating swelling is external to the articulation. Being quite out of the way of important vessels or nerves, without more ado I open it with this bistoury, and, as you see, give exit to a quantity of pus. I now distend the sac in the usual way, introduce a small vulcanite drain-tube, which I prefer to the ordinary India-rubber ones, because, unlike the latter, they do not collapse on pressure by the bandage; and now, I think, we shall be justified in predicting a rapid restoration to perfect health.

Here we have a typical example of ulceration of the encrusting cartilage. This man has no pain in his knee, no effusion into the joint; but, when you press the patella back and move it from side to side, you feel a distinct bony grating, owing to destruction of the layer of cartilage. Too much, I think, is made of diseased articular cartilage. Certainly, in regard to treatment, this is true. It may ossify, it may atrophy, it may disappear, and unless the contiguous bone become affected, very few, if any, symptoms appear, and very little damage is done. As matter of fact, however, this implication of the bones is the rule and not the exception; such, *e. g.*, was the case with Helen T., whose knee-joint I excised about eighteen months ago. For a long time, she had no symptoms beyond bony grating, then pain manifested itself, especially at night; and this proving quite intractable, in spite of active and long-continued treatment, the joint was resected, when we found much diseased bone beneath the eroded cartilage. I may for a moment dwell upon this case to say that, by some, it would be regarded as a successful example of excision of the knee, inasmuch as the bones united, the pains ceased, and the woman got about again; but, to my mind, it is not satisfactory; the limb is shortened, she is soon tired, and, after walking a short distance, has pain; she would be better off with a good stump and a wooden leg.

This little boy and girl are illustrations of another very common disease of the knee; I refer to articular osteitis. You can see at a glance that there is no effusion into the joint, and may also note that in both the leg is flexed at a right angle with the femur, and that subluxation backwards of the tibia exists, caused by the continued pull of the hamstring muscles. No sinuses have yet formed, and the enlargement of the bones, though manifest enough, is not extreme. Subjectively, we have pain on pressure and nocturnal exacerbation, with muscular spasm. Both little patients, too, have a

pained and wearied look, very sad to see in young children, and both are losing flesh. The osteitis, in such cases as these, is generally set up by some unlucky blow or fall; and if this blow chance to alight upon a strumous soil, the osteitis will probably proceed to general arthritis; yet, if we see cases like this at an early date, we may hope for a happy issue out of the trouble by long-continued rest. Gentleness and quiet are, indeed, our most potent aids in treatment; and after a time, when all inflammatory action is at an end, we may endeavour to restore the limb to a straight line, and overcome the subluxation by very gradual extension. If, by long-continued flexion, the hamstring tendons hamper us in their contraction, there is no objection to dividing any such constricting band with a tenotome.

And now, gentlemen, in the last place, I call your attention to this strumous lad, who has been in the infirmary for the last month with white swelling, *tumor albus* of the knee. He tells me that, before he felt pain, he noticed a difference in the shape of his two knees; on the affected side, the furrows on each side of the patella filled up, and soon after he began to feel pain at times and limped in his gait. Seeing this, his mother, wiser than most, brought him to the hospital, where he was at once admitted. The joint is generally enlarged, and, if we could look into it, we should find the cavity encroached upon as much as the tissues outside, owing to a villous thickening of the synovial membrane. Pressure gives little pain, and there is no increase of pain at night. Now, if this lad had been allowed to run wild a little longer, he would have limped more and more as the joint became more and more painful. The leg would have become flexed, and by-and-bye abscesses would have formed and opened around the joint. These would, perhaps, dry up after a time, leaving sinuses, with a temporary improvement of the health; then fresh abscesses would form, and the lad, emaciated and reduced by constant pain and discharge, would at length die, death being possibly preceded by an amyloid degeneration of the viscera, a condition not unfrequently superinduced by long-continued suppuration. By treatment, however, we may rationally hope to avert so calamitous a termination. The limb is placed upon a splint, both ankle and knee being immobilised, and after all inflammatory symptoms are reduced by rest and ice-bags, counter-irritation will be employed under chloroform in the shape of the actual cautery. Under this treatment, the pain will probably disappear and the swelling subside; in the latter stages, pressure will be employed by strapping over Scott's dressing. In the meanwhile, we give cod-liver oil and plenty of milk, two quarts daily, and, above all, exercise much patience; for these cases requirea long time, a year perhaps, to effect a perfect cure. It may be indeed that, despite all our efforts, the destructive action progresses. Pyrexia announces the constitutional sympathy; the joint becomes larger, softer, and more tender; abscesses repeatedly form; and the joint becomes filled with pus and broken-down tissue. If such a fate await this poor boy, I shall open the joint on one side of the patella, and hyperdistend the synovial cavity with a one in thirty solution of carbolic acid. Should this plan fail to arrest the mischief, I should at once proceed to amputate the thigh, when, in all probability, you would find that, in a few weeks, the lad would be up and about in a vastly improved condition of general health.

I cannot but warn you against excision in such cases, although the operation is advocated bp some surgeons even in the young. I confess to a strong impression that excision of the knee is, under nearly all circumstances, a bad operation, and one which will sooner or later fall into a deserved desuetude; for, after all, what is the end and object of every operation? Surely this: to cure your patient with as little risk as possible, as soon as possible, and with the best results as to utility of parts as possible. Now, how does excision of the knee fulfil these requirements? It seems to fulfil none of them. It is a more risky operation than amputation; it is an infinitely more tedious operation than amputation in the after treatment; and as to results, however pleasant it may sound to save a leg, I would very confidently back the first casual dozen one-legged men against any picked twelve men with excised knee-joints in a walking, or a jumping, or a climbing match. Look

at our recent experience of this operation—at least, take my own. Within the last eighteen months, I have excised the knee-joint five times; in two cases, after a long and tedious effort at repair, I was compelled to amputate; the other three have still their legs on, but what are they worth? The best of them cannot go half a mile without pain and trouble; and the worst of them, this poor fellow before you, has been lying convalescing (!) here for the last six months, with the grand result of just being able to lift his leg in one piece off the bed. If things go as merrily as hitherto, he may hope in another six months to make the tour of the infirmary flags, when, if he have the good luck to fall down and break his stiff leg, I shall not hesitate to advise him to allow me to substitute a wooden-peg for his own very indifferent member. Whatever be the ultimate fate of this much bepraised operation of excision of the knee, depend upon it that, in cases of strumous arthritis, the game is at no time worth the candle.—*British Medical Journal.*

PIECE OF NUTSHELL IN AIR PASSAGES OVER THIRTEEN YEARS.—RECOVERY.

BY J. W. LUSE, M.D., CLYDE, OHIO.

EDITORS OHIO MEDICAL RECORDER:—*Gentlemen:*—I was called upon to treat a child, son of George and Phœbe McFarlin, of Townsend township, Sandusky county, Ohio, in February, 1864. The boy was two years and two months old, and was suffering from an attack of bronchitis, with hard breathing and suffocation. The parents supposed the child had inhaled a small piece of the shell of a hickory nut. The proper remedies to ally bronchial irritation were administered with but temporary effect. Other physicians were called from time to time with similar results. The child's life was finally despaired of, as it was supposed the left lobe of his lungs was entirely destroyed. But on Tuesday, June 5th, 1877, after a lapse of thirteen years, three months, and seventeen days, he coughed up the piece of nutshell, which measured almost seven-sixteenths of an inch in length, and five-sixteenths of an inch in width, from point to point, in the shape of a cross, rough on the extremities and curved lengthways.

SEMI-ANNUAL REPORT IN PRACTICAL DERMATOLOGY.

BY HENRY G. PIFFARD, M.D.

LOCAL TREATMENT OF PSORIASIS.—Mr. Cottle (*Lancet*, Sept. 30, 1876) recommends a solution of india-rubber, made by dissolving half an ounce of india-rubber in eleven and a-half ounces of chloroform. He has found it useful in chronic cases of psoriasis, where there is an excessive formation of dry scales, especially in the neighbourhood of the joints. The crusts and scales being removed, and the absence of grease insured by wiping the parts with ether, and the skin dried, the solution is applied with a brush, and the application renewed as often as is needful to maintain a continuous covering over the affected skin. He has met with more rapid recovery in these cases by this application than by the ordinary local measures. He thinks the same treatment is applicable to some cases of chronic eczema.

TREATMENT OF ERYSIPELAS.—Dr. Charles Bell (*Edin. Med. Jour.*, August, 1876) believes that the failure which many experience in the use of the muriated tincture of iron in erysipelas, is due to the fact that it is not usually employed in sufficient doses. He recommends that it shall be given in twenty drop doses, every two hours, day and night. When thus used, he says, that it is a certain and unfailing remedy.

TREATMENT OF ACNE.—Chantry (*Lyon Med.*, June, 1876) uses with benefit iodide of sulphur in the severer forms of rosaceal acne. He gives it in pills, each containing 0·03 (gr. ss.) iodide, and 0·12 (gr. ij.) extract dulcamarae. Locally he uses:

℞		Grammes.	
Potassæ sulphid.....			
Tinct. benzoin	aa.	4.	(℥i.)
Aquæ		100.	(℥iii ss.)

A dessert spoonful is added to a glass of warm water and applied twice a day. (We have seen decided benefit follow the internal use of iodide of sulphur on indurated acne, but have rarely been able to employ it in doses exceeding 0·005 to 0·001 (gr. 1-10—1-6) without producing gastric disturbance. Externally in the form of ointment it has been used for many years.

Tattooing of Naevi.—Sherwell (*Archives of Dermat.*, April, 1877) "takes a number of fine sewing needles, first sharpening and somewhat roughening their cutting edges with a fine flat file, at and for a short distance from their points, and then by means of heavy sewing machine silk, well waxed, wrapped around the upper two-thirds of each in turn, and all together, forms a fasces-like bundle, the points being somewhat less than an inch apart." When prepared, he takes a saturated or 50 per cent. solution of carbolic acid, or a 25 per cent solution of chromic in a shallow vessel, and dipping the points of the needles therein, makes a series of punctures into the skin of the affected region. After the usually slight bleeding ceases, he wipes off the part with a little alcohol and quickly applies several layers of collodion. (The method here detailed is simpler than that of Squire, noticed in our last Report, and is probably as effective.—*Archives of Clinical Surgery.*

THE AUTOMATIC METHOD OF REDUCING LUXATIONS OF THE HIP.

In October last there was admitted to Dr. Crosby's wards in Bellevue Hospital a typical case of dorsal luxation (the toes resting on the opposite instep, there being very marked rigidity present, and abduction being entirely impossible), but which had been diagnosed as one of fracture of the neck of the femur within the capsule, by a physician outside, and treated as such for about thirty hours previous to admission. Under these circumstances, he resolved to at once adopt the following plan. The patient, having been placed on his back upon a blanket spread upon the floor, was thoroughly anæsthetized, in order to obtain complete muscular relaxation, and the legs were flexed at a right angle upon the thighs, and the thighs similarly flexed upon the pelvis, for the purpose of removing the strain from the ileo-femoral or Y ligament. Dr. Crosby then placed his hands under the calves of the legs, quite near the knees, and, raising the pelvis a short distance from the floor, made very slight adduction of the affected limb,—when in about half a minute from the commencement of the manœuvre he had the satisfaction of feeling the head of the bone slip into its normal position. He explained that in this procedure the patient was made to perform the reduction himself, a sort of *felo-de-se*, as he termed it; the weight of his body supplying the extension, while the counter-extension was made by the operator, who performed simply the office of a post, though an intelligent one, to be sure. The method was first described to him by a friend of his in Vermont, Dr. J. G. Allen, who had hit upon it accidentally about two years ago, while in the act of lifting a patient suffering from this dislocation, so as to get him into a suitable position for performing the usual manipulations attempted for the reduction of the deformity. Since then he has adopted the same course, with equal success, in two other similar luxations; so that Dr. Crosby's makes the fourth case in which the procedure has been employed. So far as Dr. Crosby has been able to ascertain, these are the only cases in which it has ever been done. In Dr. Bigelow's admirable monograph on luxation of the hip (a copy of which, strange to say, he found it difficult to lay his hands on in New York) he has found that the same position was used in a number of instances there recorded, but the method pursued was always different from that which he had ventured to call the automatic.—*Phil. Med. Times.*

Canadians Abroad.—In the list of the medical degrees conferred at the University of Edinburgh on the 1st of August, we notice the names of the following Canadians:—*Doctor of Medicine:* Robt. Alex. Gibbons, Canada, M.B., and C.M., 1874; marked as being worthy of competing for the Dissertation Prizes. *Bachelor of Medicine and Master in Surgery:* Alfred Joseph Harvey, (B.A., McGill,) Newfoundland; John Oke Horden, Canada; Andrew Walker Herdman Lindsay, (B.A., Dalhousie,) Nova Scotia; Arthur Charles James Rudd Lundy, Canada; Jno. Stewart, Nova Scotia. The M.D. was conferred on 33 gentlemen (of M.B. standing), and the M.B. on 105: M.B. and C.M., on 98.

Midwifery.

EXPERIENCE IN PUERPERAL ECLAMPSIA.

BY A. J. JESSUP, M.D.,
Of Westtown, New York.

In my experience of eclampsia in the puerperal state, I have observed the following facts :—

1. There has always been albuminuria, or, more strictly speaking, uræmia ; although undiscovered, from lack of thoroughness in examination.

2. In a majority, the convulsive seizures occur between the fifth and seventh month of utero-gestation.

3. That a firm fibre, with an adipose temperament, are the class, *à priori*, in which we would most frequently expect convulsions.

4. When setting in after labour, with complete or nearly complete suppression of urine, death is inevitable.

5. As a nearly exceptionless rule, when labour has declared itself, empty the uterus as soon as practicable, no matter at what period of pregnancy occurring.

6. When there is no declared action of the womb, refrain from interference, unless at full term, when, if convulsions persist, empty the uterus.

7. Almost always when occurring prior to full term, the life of the fœtus is destroyed ; occasionally this happens at full term. These results being due to convulsions or blood-poisoning to the fœtus, or both.

8. When conditions are favourable, extract blood largely.

9. Chloroform must always be an adjuvant to venesection, or, when the former is not practicable, give to control the fits ; the method will be mentioned further on, when mentioning cases.

10. The use of some free evacuant to bowels, skin, and kidneys, is most imperatively demanded, the object being, as far as possible, to unload the blood of the poisonous principles, the elements of the urine.

My object in this report is merely to give the aspects and mode of management of my cases, and not to enter into a pathological history of the disease ; to offer them to your readers as my quotum toward the aggregate of experience in this interesting affection.

Case 1.—Mrs. J. Reported by Dr. J. H. Thompson, May 28th, 1870, in the *Medical and Surgical Reporter* of that date. Patient was my wife ; the main peculiarity in treatment was the extraction of blood from the temporal artery, owing to the excessive œdema of the arm concealing the veins, and rendering venesection impossible, together with a concurrent dislocation of the humerus, caused by a fall from her couch during the first convulsion.

Case 2.—Patient was the same lady, aged twenty-eight, at full term July 13th, 1871. Fits occurred at full term, after delivery. Albumen first seen at sixth month ; urine was tested daily up to day of confinement, showing increasing proportions of albumen, until it became nearly solid in the test tube ; kept up a thorough dietetic, diuretic, and moderately laxative treatment, which, however, did no more than prevent anasarca, and kept up a moderate flow of urine, without relieving the renal oppression. A consultation was proposed, with the view of bringing on premature delivery, but was objected to by patient ; she preferred to assume all risks, in the hope of having a living child. Here we cannot too much admire the heroic unselfishness of mothers, who prefer to hazard life itself rather than forego the prospect of maternity and all its hallowed affection, which extends even to the child yet unborn. After a tedious labour of nine hours, tedious from rigidity of the os, was delivered of a still-born child at full term, weighing eight pounds. One halt hour afterward seized with clonic convulsions, affecting chiefly head, face, and arms. Pulse feeble, 140 ; weak ; skin cold ; countenance purple ; there did not seem power in the feeble heart to propel the blood to the surface, therefore venesection was without results. Two medical friends saw her, agreeing that her condition was one of uræmic oppression of the nerve-centres. The slight convulsions were warded off by chloroform, and, indeed, they formed no material element in her danger ; she remained semi-comatose during the night, arousing at intervals, taking cold water

freely; no urine; bowels would not respond to jalap, elaterium, or two drops of croton oil. On using the catheter obtained about one-half ounce of urine, very dark, of the consistence of molasses; no more secreted while she lived. There seemed no response from the nerve centres of organic life, to any stimuli employed; pulse, seven hours after first convulsion, was beyond computation; coma complete. The final scene ended fifteen hours after the first fit, and twenty-seven hours after commencement of labour. Toward the end congestion of the lungs was present very markedly.

This mode of death from uræmia is mentioned by Alonzo Clark. Here was a case in which the nerve-centres, brain, medulla, and all the ganglia of organic life were overwhelmed by the blood-poison everywhere present throughout the tissues, supplied by the vitiated fluid, whose deadly effects were observed even on the fœtus in utero, failing, as I believe, to support the life there, on account of its poisonous ingredients. Being insufficient to supply the medulla and par-vagi, they, in their turn, failed to stimulate the heart and lungs, as evidenced by the damming of blood on the right side of the heart, and slowness of the respiratory actions. By the breathing during the last twelve hours of life, it would seem that the par-vagi were insufficient, by their inhibitory function, to keep up normal respiration, the character of the breathing being thus: becoming slower and at longer intervals, until scarcely perceptible, then there would come a deep gasp, then the process repeated as before; as if nature required to be supplemented by the voluntary act in order to re-establish her function, which, when removed, respirations came faint, and fainter, until the vital function seemed almost submerged by the letheal tide, before a voluntary effort would come to temporarily restore the function, until final congestion and insensibility marked impending dissolution.

Another effect of this blood state is shown in the failure of the sympathetic to respond to cathartic action, the kidneys to diuretic, resulting in engorgement, congestion, inflammation, and final suppression of secretion.

The skin acted profusely, but only by a watery exudation, without smell or colour, and valueless as an outlet of poisonous materials.

I have dwelt thus long upon this case, because of the deep personal interest, and also hoping to throw some light upon those physiological and pathological actions of which I have seen no adequate explanations in the writings or teachings on the subject of uræmia, and hoping they may aid in throwing some light on the phenomena of other cases of this disease. I pass on to Case 3, merely hinting that those gentlemen who claim never to have lost a case of eclampsia, who are drawn up in battle array against those who have, should consider that it is their good luck, and hoping that, should the time come when they will meet one of these helpless cases, they may feel more charitable to their more unfortunate brethren.

Puerperal eclampsia; primipara, 7 months, æt. 22, with delivery by craniotomy. E. T.; called December 31st, 1874; of robust physique, in seventh month; being absent, Dr. Whitaker was called, both being present at 3 p.m.; had had four convulsions a few days previously; complained of headache, vertigo, and general malaise; with the doctor's help withdrew 28 ounces from the arm; at 4.30 p.m. a fifth fit occurred; kept her under chloroform until one hour had passed; the sixth fit occurred. The doctor left; I kept her under anæsthetic nearly continuously for three hours, giving thirty grains potassium bromide every thirty minutes, and half grain morphia, subcutaneously; not repeated; no more convulsions, urine highly albuminous; prescribed inf. dig. with an active purge.

January 1. Pulse, 90; temperature, 98; had rested well; bowels had acted freely; urine normal in quantity, albuminous.

From this date until January 6th was about the house; on the evening of this date was taken in labour, with some pains until 8th, when they began more actively; on being called, was again absent; Dr. Whitaker saw her; found os would admit two fingers; gave a full dose fl. ext. ergot; left. When I saw her the os was as large as a half-dollar; uterus seemed in a state of tonic contraction, with rigid os. Feeling certain that the ergot was acting badly, and having some anxiety that my patient should

do well, having passed through one siege of eclampsia, I regretted the dose having been given; however, it would do no good to lament, so I tried every known method to relax the rigid os without avail. At 2 a.m. the same night, the pains continuing severe, without further dilatation, patient becoming exhausted, with a wild look in her eyes, what I most dreaded happened, one of the most severe, long-continued convulsions I ever witnessed; bled to 16 ounces; chloroform; a second fit occurred in thirty minutes. I kept her fully under chloroform; sent for Dr. Whitaker and Dr. Haynes, who, arriving, agreed with me that, as it was unsafe to attempt delivery with forceps, we should proceed to deliver by craniotomy at the earliest possible moment, as we had grave reasons to fear a third convulsion like the last. Dr. Whitaker gave the anæsthetic; Dr. Haynes aiding by supporting abdomen, I proceeded to perforate; guarding the lips of the os by the fingers of the left hand, I succeeded in breaking down the cranium and delivering. Uterus contracted well; patient, after some fever and debility, made a good recovery. There was no doubt about the life of the child being extinct; motion had not been felt for more than twenty-four hours past.

I do not remember having heard of a case where craniotomy was required from such a cause. This case required immediate action; delivery must be had without delay, all the medical men present agreeing that the brain could not withstand the pressure of another convulsive seizure.

Case 4.—Puerperal uræmia, with impending eclampsia. A. Mc——, aged 27; primipara; adipose; plethoric; had always had perfect health; had been suffering with headache, with abdominal pains, referable to region of the stomach, and nausea, for one week previous to my visit. I was called on account of a violent and persistent headache. She described pain "as if caused by a nail being driven over right eye." I tested urine, and found it highly albuminous. While engaged in this, patient called me to the bedside. She sat up, saying that she could see but half of my face, while the supra-orbital pain became so intense as to cause her to cry out with agony. Without losing a moment, I took blood without stint, not caring for measurements. I bled until she fell over on the bed, fainting, in all a large wash-basin, nearly full—about three pints. This relieved the intra-cranial pressure, as also the pain and defect of vision. The usual evacuants, with sedatives, were prescribed. At the end of three days I was summoned to attend her in miscarriage, death of the fœtus having taken place, and, of course, the uterus proceeded to expel the foreign substance. This must have been a result of uræmia. This case will also illustrate the necessity of extreme caution in dealing with pregnant primiparæ. We should examine the symptoms with extreme care, to the end that we may be enabled to step between the patient and danger or death, and so happily ward off either.

Apropos. Since we have so powerful an agent for relief, when used in proper cases, it would be well to remind those physicians who, in following modern fashions too much, neglect this important therapeutic agent, that in seeking a substitute in chloral, veratrum, aconite, and other deadly agencies, they are handling two-edged swords, which oftener sever the "silver cord" than relieve disease, and would call their attention to the report of a case from the pen of W. H. Parrish, in the *Reporter*, February 23rd, 1876, Case 3. The treatment there needs no comment.

Case 5.—Mrs. DeG., age 23, primipara, full term, of delicate frame but healthy; albuminuria; venesection, twelve ounces. In this case chloroform controlled fits easily (as indeed it did in all of my cases subsequent to venesection). Labour set in three days after, with the birth of a healthy child.

I will conclude with a description of the method which I have found most useful in administering chloroform.

The fits generally recur at exactly equal intervals. For instance, if the first two are fifteen minutes apart, they will continue to recur at the end of each fifteen minutes; if half-hour apart, one hour, and so on, unless the order of succession is broken by your efforts to subdue, or some change takes place in the phase of the attack. The practical application of this observation will be appreciated when giving chlo-

roform; it would be unwise to keep a patient under chloroform from hour to hour, so my plan is to watch the clock, and when the time approaches when we may certainly expect a convulsion, I bring the patient fully under, keep her so until the time is past, then discontinue until the next, and so on, when, after four or five hours of such treatment, your patient will be secured for a considerable time, say twenty-four or forty-eight hours, from a recurrence of the fits; generally the period of immunity persists until the onset of labour. There is one little caution needed. We will suppose you have controlled three fits; in doing so you have broken the order of their regularity. You then relax your vigilance, and are surprised by a fourth.

Now, to make sure that there shall be but one fit after I enter the house, I pursue the method as above, with the further watchfulness of commencing the anæsthetic at the slightest signs of restlessness, staring, etc., which signs are generally the premonitions of a convulsion. Such a plan, followed for several hours, will, as remarked above, save your patient from the added risk of even one convulsion. Adjuvants, as mentioned above, will carry your patient on, until labour supervenes. If it has set in the uterus must be emptied as soon as practicable.—*Med. and Surgical Reporter.*

A Young Mother.—An esteemed and entirely trustworthy correspondent has furnished us with the following facts touching a case which came under his observation. As an instance of early maternity, the case is one which certainly vies with any case on record: The girl first menstruated when ten years and six months of age. She became pregnant at eleven years and six months, and was safely delivered of a male child January 19th, 1875. The reputed father of the child was, at the time, a hopeful of fourteen years of age. The child is still alive, but not very strong or bright, although the promising parents are doing as well as could be expected.—*Detroit Journal.*

Hydrobromic Acid is highly spoken of in tinnitus aurium.

OBESITY AND AMENORRHŒA OF YOUNG WOMEN TREATED BY MILK DIET.

M. Tarnier was consulted some time ago by a young woman who had been suffering from albuminuria. She was very fat and had not menstruated for several months. He ordered only the vigorous employment of a milk diet; some months later he saw her again, and was surprised to find her quite slender in form, and presenting all the appearance of health. She had followed his directions to the letter, and the amelioration of the symptoms had been rapid. First the albumen disappeared from the urine, and then the precocious obesity disappeared. Menstruation was gradually re-established as she grew thin, and her periods had begun to occur at normal intervals. Shortly afterwards Tarnier ordered milk diet to a young woman who was very obese, and in whom there was absolute suppression of the menses. She had no albuminuria. The patient lost flesh rapidly, and menstruation was perfectly re-established. These cases possess much practical interest. Milk diet must be classed among the alterative medications, but it has the advantage of being well borne by the stomach, and of not disturbing the general health. In treating albuminuria with milk, M. Tarnier orders: For the first day, one quart of milk with two portions of food; for the second day, two quarts of milk and one portion of food; for the third day, three quarts of milk and one portion of food; for the fourth day and afterwards—four quarts of milk and no food at all.

In the treatment of obesity it is not necessary to adhere so vigorously to the milk diet; a small quantity of the ordinary food may be allowed. The patient may take the milk in such quantities, and at such times, as she likes, provided she takes the requisite quantity per diem. The duration of the treatment will vary in different cases. If diarrhœa set in, it is a sign the treatment is not well borne. When the desired effect begins to show itself, it continues even after the treatment is suspended.—*Jour. de Med. et de Chir.*, Vol. 47.—*N. Y. Medical Record.*

Cases in Practice.

A CASE OF VESICAL CALCULUS.

BY J. E. GRAHAM, M.D.
Toronto General Hospital.

Wm. Davie, aged 38 years, labourer. When about eight years of age (living at that time in Suffolk, England) was troubled with pains in glans penis and stoppage of stream while urinating. This continued for about three years, when it disappeared almost entirely under appropriate measures. The next attack of any consequence was when he was 17 years old, but this also succumbed to treatment. Has had several similar recurrences since then; never been entirely free from pain and symptoms since disease first appeared. Came to Canada in 1857. Last attack, which is the worst he has ever experienced, came on about end of April, 1877. He attributes its severity to a strain received at work. Was obliged to take to his bed. Symptoms: Pain across lumbar region of back, and down right hypochondriac and right lumbar regions, and in hypogastric region.

Pain of a burning, smarting character. While urinating stream stops suddenly, and only proceeds on changing position. Can pass but a few drops at a time. Stone was found on examination, measuring ——

First crushed May 18th, and ascertained to be phosphate of lime. After operation, complained of a good deal of pain about hypogastric region. Passed water continually, a few drops at a time, tinged with blood, and containing some pus. Bladder syringed out daily with tepid water. Inflammatory symptoms subsided. Second crushing attempted May 26th; unable to detach any fragment. After operation: pain in vesical region, and passage of urine laden with blood and pus; bladder washed out daily with solution of salt or nitric acid, ʒss to a pint. Difficulty in introducing catheter past neck of bladder. May 30th, blood entirely disappeared from urine, but pus still present. Complains of weakness and chills, which he says have troubled him for some time, coming on at stated periods. Anorexia, aphonia, pulse 120. June 1st, pulse normal, complains of weakness and chills, followed by apyrexia. Suddenly taken worse about 6 p.m., and died at 11 p m. same night.

Post-mortem, June 3. Round tumour below and behind pubes, very hard. On removal found to consist of bladder contracted close down on calculus. Calculus, 2½ inches long and 2 inches in breadth, weighing ʒiii. ʒvi. In appearance and shape like a fair-sized hen's egg, surface yellowish white, and tolerably smooth, except at one side, where the fragment, removed at first crushing, had left a denuded roughened surface of about three-quarters of an inch in length and one-half inch in breadth, showing strata of calculus. Bladder contracting and pressing calculus close beneath pubis, prevented introduction of catheter. Base of bladder full of fragments of calculus of various sizes, some being very sharp and pointed. Coats of bladder very much hypertrophied. Kidneys: left kidney strawberry colour, cirrhotic, contracted to about one-fourth its normal size. Tissue degenerated, and very friable. Right kidney: tumour felt on right side, extending from the tenth dorsal to the third lumbar vertebræ. On examination, found to be the capsule of right kidney distended with coagulated blood. Kidney itself much hypertrophied, being about 1½ times the normal size towards inferior portion of cortical portion, a small aperture about one eighth inch in diameter, through which blood had escaped. Tissue of kidney degenerated. Colour darker then normal. In hilus, calculus found about 1½ inches in length and three-quarters inch in breadth at broadest part, weighing 1½ oz, very irregular in shape, and of same composition as vesical calculus. Liver not examined.

Had always been accustomed to drink pretty heavily.

In Suffolk district, England, calculus is very prevalent. Grandfather's brother's family very subject to it, but is the only one of his branch that ever had it.—*Reported by Mr. Burton.*

Mr. Simon (in the *Chicago Medical Journal and Examiner*) states that he instantaneously cured a case of hiccough, which had lasted twenty-six hours, by the inhalation of three drops of nitrite of amyl.

WOUND OF THE FEMORAL ARTERY BY A PISTOL BULLET—LIGATION—DEATH THIRTY-ONE HOURS AFTER.

BY R. ZIMMERMAN, M.D.
Toronto.

George Rennardson, aged 47, was shot by his son on the evening of June 27th. I saw him a few minutes after the injury, and found that the bullet had entered the upper and front part of the right thigh about one inch below Poupart's ligament, and exactly over the course of the femoral vessels. When I arrived, the hæmorrhage, which had been profuse, had completely ceased, as far as one could judge from external appearances. The man was very weak, and complained of great pain in the leg, which was exceedingly tender. A swelling, apparently due to blood clot, could be felt under the skin around the wound. There was no pulsation in the femoral, popliteal, or posterior tibial arteries. I applied a compress and spica bandage very firmly over the wound, and gave morphia hypodermically to ease the pain and vomiting, both of which were severe. Dr. Cassidy, who had been sent for at the same time as myself, now arrived, and we appointed to see the patient together early in the morning. About 5 a.m., I was obliged to repeat the morphia hypodermically. At 9 a.m., Dr. Cassidy met me, and we found that the limb was still pulseless below the wound, very cold, and much swollen between the groin and the knee. Fearing internal hæmorrhage and gangrene of the leg, it was decided to cut down upon and ligate the wounded vessel, which I accordingly did at 10 a.m. Present—Drs. Cassidy, Greenlees, Cameron, Grasett, Teskey, and Cowan. On reaching the deep fascia and withdrawing my finger, which I had passed into the wound, the blood gushed out. Digital pressure over the femoral artery readily controlled this, and the femoral vessels being exposed, ligatures were placed round the femoral artery above and below the wound, which was situated about one inch below Poupart's ligament, and had perforated the artery. The ball was not visible, and it was not considered desirable to search for it. Very little blood was lost during the operation, although there was some difficulty in passing the upper ligature on account of the pressure that had to be kept up on the artery. The edges of the incision were brought together by wire sutures and the patient placed in bed, the limb being wrapped in cotton wool and surrounded again with hot bottles. The patient rallied well from the chloroform, and was pretty comfortable during the day, although exceedingly weak. At 4 a.m., on the 29th, I was sent for, and found him dead. At the *post-mortem* a conical pistol bullet was found lying on the capsular ligament in front of the head of the femur: it was flattened on one side. The artery was wounded immediately above the profunda, so that one ligature was above, the other, below the origin of this vessel which was not seen during the operation. Had collateral circulation been established the blood would have travelled through the branches of the profunda to the wound and profuse secondary hæmorrhage must have occurred. The collateral circulation to the leg being thus cut off, even if the secondary hæmorrhage were controlled in time, gangrene of the leg would have been almost inevitable. Transfusion and amputation of the leg at the hip-joint might have given him a chance for life. It is probable that syncope, from the great loss of blood, and subsequent coagulation of the blood effused into the tissues about the wound, averted an immediately fatal termination. A large quantity of coagulated blood was found extending along the vessels up into the abdomen and down the thigh. All the organs of the body were healthy, though almost bloodless.

LARGE SCROTAL HERNIA IN A YOUNG CHILD; OPERATION FOR RADICAL CURE BY WOOD'S METHOD.

Under the care of Mr. Wood, King's College Hospital.

On Saturday last Mr. Wood operated on a case of large scrotal hernia, in a child aged three years. The case presented several points of interest. The appended remarks have an additional value, inasmuch as they give the results of Professor Wood's most recent experiences.

The case was congenital, and no truss was of any avail. The abdominal opening was large enough to admit easily two fingers direct, and

very lax. The coverings of the sac were thin and delicate. The case required delicate and careful manipulation from the great tendency of the bowel to rush into the sac under the least strain. The rupture could be returned, and kept up most easily by holding up the little patient's legs and pelvis. The fingers of the assistant were then placed over the hernial opening, while the preliminary incisions were being made. The sutures were then placed securely, and the loop of wire tightened up and twisted, with the effect of entirely closing up the hernial aperture. Pressure was then made by a pad and spica bandage, and the child's knees drawn up and held securely together by a roller.

In his remarks after the operation, Mr. Wood stated that he had now operated in more than 200 cases, but few of them were so young as this case, for the reason that it was found difficult to control one so young during the critical period just after the operation. This case, however, was so severe and uncontrollable, and so certain if left in its present state to disable the patient for life, that an exception was made to the above rule. With reference to the supposed danger of peritonitis, Mr. Wood said that of the three deaths which had occurred in his hands out of the 200 cases, only one was from peritonitis, but even this was found to arise on the opposite side of the abdomen to that operated on, and to have started from a knuckle of bowel which had evidently been in the sac before the operation, and pressed upon by the truss. No inflammation was found in or near the sac operated on. He had found symptoms of peritonitis in not more than 10 out of the whole 200, and then it was usually slight, and confined to the parietal peritoneum. The chief thing was to choose only healthy subjects for the operation, and to be careful to provide a free escape for any discharge which might occur. Usually the after-discharge was very scanty, and consisted chiefly of serum, which crusted the wound. The wire should not be disturbed till a week or ten days had elapsed, and both the doubled ends had ulcerated into the same track or channel. Adhesion and granulation would by this time have matted together and made adherent the enclosed and twisted sac and parietes of the canal. In a severe case the adhesions usually remain for some time delicate and tender, and require support from a well-fitting truss till they are firmly consolidated. In a small and favourable case, however, the sides of the inguinal canal become blended together over and around the spermatic cord, and the natural valvular functions which prevent rupture are restored and maintained. As far as he could follow the numerous cases, he found an average of cures of about 70 per cent. Some had been shown from time to time in the theatre of King's College Hospital after a lapse of eleven, fourteen, and sixteen years; remaining (one under severe tests) perfectly well, and requiring no truss after the first twelve months. —*London Lancet.*

ACUTE ABSCESS OF THE TONGUE (UNILATERAL); RECOVERY; REMARKS.

Under the care of Mr. Bellamy, Charing-Cross Hospital.

Suppuration of the tongue in any form is a rare condition, but unilateral suppuration particularly so. It is a disputed question whether the seat of inflammation is in the muscular tissue or in the interfibrillar cellular tissue. It should not be forgotten that the cellular element in the tongue is scanty, and is disposed in very delicate lamellæ, especially towards the middle portion of the organ—the seat of abscess in this instance. The seat of the swelling is somewhat important anatomically in regard to the differential diagnosis of cancer. The case here recorded was, it will be seen, in all probability the result of the introduction of some septic material immediately beneath the mucous membrane, in which the lymphatics form a very free network, terminating in the submaxillary, infra-sternomastoid, and pre-thyroid ganglia, which were involved.

The patient was a child aged seven, who presented herself with a very painful unilateral swelling of the right half of the tongue, which was much furred. It was said that the tumour —which was so large as to render protrusion of the organ impossible—came on suddenly; but examination disclosed a small jagged cut on

the under surface of the central portion of the tongue. It would almost appear that some particle of decomposed food had been lodged in the wound. The tumour involved the entire dorsum of the one side, being clearly limited by the central line. A plunge of a lancet evacuated a large quantity of pus. It was clearly shown that the abscess was in the proper substance of the tongue, and the limiting effect of the septum upon the diffusion of the pus was well exemplified. The topography of this septum could be easily demonstrated as being strong and thick mesially and posteriorly, gradually becoming thinner towards the tip, where the swelling seemed to involve both sides of the organ. Mr. Bellamy called attention to the fact that the trunk of the ranine artery is liable to lie loose in the sac of a lingual abscess, and would give great trouble if divided; and, moreover, that, owing to congestion, the venous system of the tongue becomes enormously enlarged and the free inosculation increased, consequently severe hæmorrhage may be the result of an ill-directed "slash" into a lingual abscess —*London Lancet.*

Experiments to Show the Presence of Mercury in Mother's Milk.

A number of investigations have been made recently to settle the much-vexed question as to whether the presence of mercury could really be shown in the milk of a mother to whom mercury had been given. The investigations made in Judakowski's laboratory, after Schmeider's method, demonstrated the presence of mercury, putting the matter beyond all doubt. The amount of the mineral was very small, and the reason why it had not previously been demonstrated was because the quantity of milk used in the test had been altogether insufficient. *Rundschau.*

Dr. Bryan, of Louisburg, Kansas, records in the *St. Louis Medical and Surgical Journal* for July, a case of gestation prolonged to four hundred and forty-two days. He states that the facts can be established beyond cavil.

India-rubber caps to feeding bottles, toys, etc., sometimes contain enough oxide of zinc to make them a source of danger.

Original Communications.

MODERN OTOLOGY.

BY R. A. REEVE, B.A., M.D.

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(Read in part at the meeting of the Canadian Medical Association, held in Toronto, August, 1876.)

Fifty years ago this part of the domain of medicine was quite uncultivated, and the rankest empiricism prevailed. Indeed, the two chief aids to the study and treatment of aural disease have been given to the profession within the last twenty-five years,—the otoscope or ear-mirror, by Troltsch, in 1855; and the "air-bag" for inflating the tympanum, by Politzer, in 1862. During the past two decades rapid strides have been made in the knowledge of the ear and its diseases, and to-day otology takes honourable rank with the sister department of ophthalmology. To pass in review those points of aural medicine and surgery which are of the most practical importance is the purpose of the present paper. The indirect examination of the ear by the mirror, and the speculum,—a short conical or funnel-shaped tube of metal or hard rubber,—has supplanted the *direct* method by Kramer's bivalve or handled speculum, formerly in vogue, which was, at best, an inefficient and rather painful process. With the ear to be examined turned away from the source of illumination, the speculum gently inserted into the mouth of the meatus and the light reflected from the mirror into it, one can scan at a glance the meatus and drum-head; and can also readily determine the presence or absence of foreign bodies, cerumen, polypi, &c.; congestion, perforation, curvature, &c., of the drum-membrane; and, to a certain extent, the condition of the tympanum. With the mirror attached to the forehead band, and both hands free, one can manipulate forceps in the meatus or cauterize granulations without giving pain, or evacuate pus from the middle ear by incision of drum-head, or remove polypi, &c. In fact, the introduction of the ear-mirror has revolutionized aural surgery, and its use enables one to avoid difficulties that were once very perplexing. It is no longer in order to

prescribe frequent and forcible syringings for the removal of cerumen that is not present, or to blindly grope for foreign bodies which have already escaped from the meatus, or possibly never entered it.

The Politzer apparatus—a large rubber bulb or bag with a rubber tube ending in a nose-piece attached to its nozzle—is very serviceable in diagnosis and prognosis, as well as treatment, to determine the patency of the Eustachian tube, the mobility of the membrana tympani, presence of perforations, &c. It is used as follows : a sip of water is taken, the nose-piece is put into one nostril, and both nostrils are tightly closed ; then, as at a given signal, a nod *e.g.*, the patient swallows, the bag is suddenly and forcibly compressed. The air rushes up the Eustachian tubes, distends the middle ears, and causes an outward movement of the drum-heads. This procedure often effects a very marked relief of subjective symptoms and a decided improvement of the hearing. In cases of acute inflammation, after the acute stage has passed, it clears the tube and middle ear of secrétions and restores the normal position and mobility of the drum-head, and also by preventing adhesions tends to preserve the functions of the tympanum. The periodic use of the air-bag is indispensable in the insidious progressive deafness (chronic aural catarrh) secondary to naso-pharyngeal catarrh, where the calibre and patency of the Eustachian tube are lessened and its functions otherwise impaired, and the drum-head is becoming stiff and abnormally concave. The Politzer method is no less valuable in the sub-acute and chronic aural catarrh of children, upon whom, moreover, the Eustachian catheter cannot be used. It is also useful in the cleansing of the middle ear prior to applying remedies, by forcing the secretions into the meatus, from which they can be removed by the douche or syringing ; and also after instillations of medicated solutions to secure their proper entrance into the tympanum through perforations. In view of the commonness of ear disease and the great utility of the air-bag in its treatment, it is an additional merit that its use requires no special skill. It is now frequently put into the hands of the laity.

Though the Eustachian catheter,—a slender tube of about six inches in length, slightly curved at one end, and preferably of hard rubber, introduced through the nostril—yields the palm to the Politzer method for the convenience and wide range of its application, its great value is fully established, not only as an efficient adjunct of the air-bag, but for the direct treatment of the Eustachian tube and tympanum by vapours, astringents, &c. The tuning-fork is now generally used in diagnosis and prognosis. If the shank of a vibrating tuning-fork be placed on the vertex or forehead, the vibrations are heard most distinctly by the ear whose drum-membrane is thickened, or meatus or Eustachian tube obstructed ; and it is not well heard by the healthy ear unless the meatus be closed. In pure nervous deafness (disease of labyrinth) it is not heard under any circumstances. The rhinoscope is, in some cases, a necessary supplement to the other appliances, furnishing the means of deciding, by ocular inspection, the condition of the posterior nares, vault of pharynx, and mouths of Eustachian tubes. The ear-tube is also employed, and is sometimes useful in auscultating the tympanum during its inflation. The examination and record of an ear case are not considered complete unless the hearing power be tested by the watch and voice ; the rule being, to note the furthest distance at which they can be distinctly heard by each ear in turn. A very useful appliance is the aural douche, with which the meatus and drum-head (or middle ear) may be irrigated by a continuous stream of warm water, pure or medicated. It acts on the principle of the syphon, and can be extemporized by using a pitcher, basin, &c., as the reservoir into which is placed one end of a long piece of narrow vulcanized tubing, leaded or weighted ; the other end, armed with a small blunt nozzle of bone, hard rubber, &c., being placed in the mouth of the meatus. A receptacle is placed closely under the auricle, and on raising the vessel a little above the head a gentle stream enters the ear. A gallon or more of liquid may be allowed to flow at one sitting, and this may be repeated at short intervals or *p. r. n.* Its use is generally attended by marked and speedy relief of pain, more especially in the so-called

car-ache of children. For the thorough cleansing of the ear, the syringe is preferable to the douche, but unless the former be carefully used some distress and, at times, annoying vertigo are apt to be caused by the forcible entry of fluid through perforations into the tympanum. It is not unworthy of notice that pure warm water should, with few exceptions, be used, and the nozzle of the syringe should always be rather blunt-pointed, so as to avoid the risk of injuring the sensitive meatus; and the old glass or metal article should be discarded for the more handy bulbous form. A large hard-rubber or metal piston syringe is sometimes required for the removal of impacted wax; and a little device, that is sometimes essential to success (also in the use of the mirror), is the straightening of the meatus by traction upon the auricle. The value of *early* local depletion by leeching is now widely recognized, in aborting inflammation, subduing pain, &c.; and the congestion of the meatus and tympanum is most effectually relieved by applying the leeches just in front of, or within, the meatus.

As the physiological and pathological anatomy of the ear became better known, the old-time nomenclature of its diseases gave way to a simpler and more rational classification; which, somewhat abridged, is as follows:—

I. Affections of the External Ear.*—Diffuse inflammation (*otitis externa*); circumscribed inflammation (*furuncle*); inspissated or impacted cerumen; eczema; polypi; vegetable fungous growths (*otitis parasitica*); foreign bodies.

II. Affections of the Middle Ear or Tympanum.—Acute aural catarrh (*otitis media catarrhalis acuta*); chronic aural catarrh (*otitis media catarrhalis chronica*); acute suppurative inflammation (*otitis media purulenta acuta*); chronic suppurative inflammation (*otitis media purulenta chronica*)—the so-called "otorrhœa,"—with its complications or sequelæ, viz: polypi, exostoses, mastoid disease, caries and necrosis, paralysis, pyæmia, and cerebral abscess.

III. Affections of the Internal Ear or Labyrinth—*Otitis Interna.*—Hemorrhagic, serous, plastic, and purulent *otitis interna.*

Affections of the external auditory meatus may generally be readily diagnosed with the mirror. They are of less moment and of much less frequent occurrence than those of the tympanum, and are much more amenable to treatment. The meatus being mainly a bony canal, lined with periosteum and integument, richly supplied with nerves and vessels, and in close relation to important parts, the special indication is to abort inflammation by prompt and free local depletion, the use of the douche, scarification of the meatus; early incision of furuncles; sudorifics, anodynes, &c.

The accumulated experience of the profession conclusively shows that the safest and best mode of removing foreign bodies, inspissated cerumen, &c., from the meatus is by syringing with warm water—persistent and prolonged, if necessary, and with the affected side dependent;—and that forceps, probes, &c., should be used with great care, and generally only as a last resort, and then under illumination by the mirror.

A somewhat interesting feature is the recent recognition within the auditory meatus, of vegetable fungus or mould (aspergillus, commonly): tough, whitish or blackish flakes, so closely adherent to the meatus and *membrana tympani* as to necessitate the use of the forceps for their removal, together with subjective sensations of pain, tinnitus, and vertigo in an ear free from suppuration, are suspicious indications. The microscope decides the question. A cure is effected by the frequent removal of the fungus and the instillation of such parasiticides as alcohol, acid carbolic, calcium hypochlorite, hydrargyri perchloride, &c.

That much misconception has prevailed in regard to the pathology of disease of the middle ear, is shown by the established use of such misnomers as "ear-ache" and "otorrhœa." Nowadays, the one is properly regarded as merely a graphic expression for a prominent symptom of acute inflammation, and the other but the sign of a more or less serious morbid process. The intimate relation between the naso-pharynx and the tympanum has fortunately become recognized, and it is no longer thought doubtful that pharyngitis is the most prolific source of ear disease. Tubal catarrh, catarrh of middle ear and hypertrophy and sclerosis of its lining membrane, rigidity of

* The external ear includes the auricle and external auditory meatus; the middle ear—the *cavum tympani* with its membrane, the mastoid cells, and eustachian tube; the internal ear—the vestibule, semi-circular canals, cochlea, and auditory nerve.

the ossicles and drum-head, and a sunken or collapsed state of the latter from external pressure—owing to non-supply of air to the tympanum from partial closure of the Eustachian tube,—subjective noises (tinnitus); and deafness, frequently profound: these are the train of results (chronic aural catarrh) that sooner or later follow a recurrent or confirmed naso-phyaryngitis; as surely, indeed, as does "abscess" of the middle ear occur in the angina of scarlet fever or measles. Hence the systematic treatment of the nares, pharynx, and Eustachian tubes by the application of astringents, caustics, &c., by nebulizers, insufflators, syringes, gargles, and catheters, has become an integral part of the therapeutics of aural surgery. And it is to be hoped that ere long, through the medium of the profession, the laity will learn that "throat deafness" is none the less certain and serious in its effects because, as a rule, of an insidious and painless character; and that the "stupidity," thick speech, snuffling, and excessive expectoration, of multitudes of naturally bright children are due to a common cause, a neglected naso-pharyngitis, with resulting tubal and aural catarrh, deafness and "dulness," and that by timely attention these sources of parental grief and annoyance may generally be made to disappear simultaneously. It is, perhaps, not out of place here to remark that the indiscriminate and self-appointed use of the nasal douche by the myriad sufferers from "catarrh" is injuring many ears, through the inflammation excited by the forcible entry of fluid into the tympanum, caused by the act of swallowing. An intermittent stream of moderate force directed into the open nostril from an enema syringe, or the use of a posterior nares syringe (of which Warner's is about the best), would be much safer and equally effectual.

The increased responsibity devolved upon the family physician by the advances in otology deserves notice. He is generally in a position to detect aural diseases in their incipient stages, when they are especially amenable to treatment, and long before the integrity of the organ is beyond recovery. Even the casual reference to the presence of subjective noises (tinnitus) should arouse his suspicions, for tinnitus indicates irritation of, or pressure upon, the labyrinth, and is a common symptom of aural catarrh, often an early one. If, again, in a case of scarlet fever, *e. g.*, it is found that in spite of leeching (if such can be borne), douching, use of air-bag, and treatment of angina, &c., the aural complication is rapidly running into the suppurative form, then a timely puncture or incision of the drum-head (as by a cataract needle with long shank) will evacuate the pus accumulating in the middle ear,—which generally finds vent by spontaneous perforation, ulceration, and loss of the membrane; and following this up by frequent cleansing of the ear by Valsalva's or Politzer's method and douching, and the instillation of astringent solutions, as, *e. g.*, sol. zinci sulph. 1 to 5 grs. ad ʒi., *ter die*, and in a few days, if need be, by sol. argent nit. 20 to 80 grs. ad ʒi., daily,—the middle ear can be restored to a healthy state, the perforation becoming closed and the hearing recovered, in from two to six weeks. Whereas, when such cases are neglected and allowed to become chronic, we can never predict—to quote the late Sir William Wilde—"when, where, or how, they will end." They will, most probably, eventuate at least in loss of part of the drum-head, and adhesion, in whole or part, of the remnant to the promontory, &c., and in permanent impairment of the hearing. It is to be hoped that the laity will soon learn the impropriety of leaving "running" ears to dame Nature for their healing, for the dangers of a do-nothing course are amply attested by the innumerable instances in which, in constitutions vigorous in spite of the drain upon them, the hidden spring continues its foul discharge for ten, twenty, thirty years, deafness supervening, with its attendant disabilities, or possibly premature death from secondary cerebral abscess, &c.

What are the pathological conditions and import of the so-called Otorrhœa (*otitis media purulenta*)? We must premise that the middle ear is, in most cases, the seat of the disease—not the meatus, as is commonly thought. Consider the anatomy and relations of the tympanum: the *cavum tympani* is lined by a modified mucous membrane continuous with that of the Eustachian tube and mastoid cells, which is virtually a periosteum; it is traversed by the facial nerve and contains the delicate ossicles

and tympanic muscles; posteriorly are the mastoid cells, anteriorly the Eustachian tube; the brain lies on its roof,—which, by the way, is often so thin as to be a mere skylight, with the dura mater for a curtain,—its inner wall is in contact with the labyrinth and the internal cartoid artery, and its floor rests upon the arch formed for the internal jugular, while the mastoid cells are in close proximity to the lateral sinus; and the bony walls of both the tympanum and cells are traversed by blood-vessels, which form ready channels for transmitting purulent infection to the jugular vein and lateral sinus, &c.

The various morbid conditions to be found are as follows:—The drum-head partly or wholly lost by ulceration, with caries or necrosis of one or more ossicles or anchylosis; the mucous membrane of the tympanum vascular and granular or studded with polypoid granulations; bunches of granulations due to and hiding a localized necrosis or caries; the meatus plugged by a polypus, around which is oozing thin fœtid pus the more solid part of which is retained in the tympanum as a putrid, cheesy mass; necrosis of some part of the bony wall and sinuses leading to diseased cells; sub-periosteal thickening of the external meatus (exostosis); and in some cases periostitis of the mastoid, caries, necrosis, fistula, &c. Implication of the mastoid is a grave and not uncommon complication of disease of the middle ear: pain, tenderness, and swelling, at once indicate external periostitis, while frequent and painful exacerbations occurring in the course of a suppuration of long standing, or deep-seated pain which does not succumb to leeching, &c., point to internal periostitis, caries, &c.

The significance of *otitis media purulenta*, in one aspect, is shown in the record* of seventy-five cases of cerebral abscess, by Drs. Gull and Sutton, of which twenty-five, or about thirty-three per cent., were directly traceable to chronic suppurative processes in the middle ear—a higher percentage than from any other cause. Roosa, in his valuable work on the ear, tabulates forty cases in which death ensued from secondary meningitis, pyæmia, and cerebral abscess, caused by ear disease. But no tables can convey the disability resulting from the loss of hearing—a dead weight in the race of life—with its reflex effects on mental development and material success.

(To be continued.)

* Reynold's *System of Medicine*

Formularies.

Tincture of Phosphorus.—Dr. Emerson, N.Y.

Phosphorus	6 centigrammes.
Absolute Alcohol	10 grammes.
Glycerine	24 "
Alcohol (at 90°)	4 "
Essence of Peppermint	2 "

Dissolve the phosphorus in the absolute alcohol and glycerine, and flavour with the alcohol and essence of mint. Solution is complete, and the liquid remains perfectly clear. This preparation is employed in two-gramme doses every three or four hours, in the treatment of neuralgias.—*Trans. Am. Neurol. Assoc.*

Russian Drops.—Niemeyer.

Æthereal Tinct of Valerian	8 grammes.
Wine of Ipecac	4 "
Laudanum (Sydenham)	1 gr. 30 centigs.
Essence of Peppermint	5 drops. Mix.

This remedy is recommended to allay the obstinate vomiting of cholera. Ice internally, with Seltzer water, and Bordeaux or Champagne wine.—*L'Union Medicale.*

Sedative Clyster.—Aran.

Chloroform	1 to 2 grammes.
Pulverized Gum Arabic	8 grammes.
Yolk of Egg	No. 1.
Water	125 grammes.

An enema, designed to allay the painful element of various affections, such as hepatic and nephritic colic, cystitis, etc. The water may be replaced by an infusion of chamomile, or a decoction of poppies.—*L'Union Medicale.*

Antirheumatic Draught.—N. Gueneau de Mussey.

Salicylic Acid	5 grammes.
Bicarbonate of Soda	3 "
Julep gommeux	120 "

Make a draught, of which a tablespoonful will be given every three hours in acute articular rheumatism. The pains usually become less acute when the patient has taken two or three doses.—*L'Union Medicale.*

Ointment for Eczema.—O. Will.

Salicylic Acid	2 to 4 grammes.
Axungia	30 grammes. Mix.

This ointment is recommended in the eczematous affections of the head and face, and has been very successful in a large number of cases.—*L'Union Medicale.*

Translations.

The Danger of Active Remedies in Cases of Renal Lesion.

It is now rather a long time since this curious symptom—viz.: the impermeability of the kidney to odours, in albuminuria was remarked; thus it is that in these patients the absorption of turpentine or of asparagus does not give rise to the usual characteristic odour in the urine. Dr. Beauvais had even pointed out the fact, as sufficing, for himself, to establish the existence of Bright's disease. When this defect of elimination is produced by active remedies, as opium, belladonna, etc., serious accidents may occur, hence the conclusion that these substances become poisons, even in small doses, in cases of renal alteration. M. Chauvet has fully demonstrated this fact in his thesis, by the observations which he has collected, and has shown at the same time by experiments that the mode of elimination of certain remedies is greatly modified by kidney disease. Take the sulphate of quinine, for example, its elimination by the kidney in healthy subjects commences twenty-five minutes after its ingestion, and lasts three or four hours; moreover, there is found in the urine more than a quarter of the amount ingested. In persons whose kidneys are affected, on the contrary, the sulphate of quinine delays a much longer time in showing itself in the urine; its elimination may continue for eight hours, and the total quantity eliminated varies between one-tenth and one-fiftieth of what was taken. These experiments were made upon a large number of different subjects.

The bromide of potassium, whose elimination is completed twenty hours after withholding the remedy in a healthy subject, lasts thirty or forty days in one whose kidneys are diseased.

Analogous results have been observed with the iodide of potassium, whose elimination otherwise is much more rapid.

M. Chauvet reports also two cases in which rapid and most serious mercurial intoxication occurred, produced by the absorption of Van Swieten's liquid in very moderate doses in the first case, and by a cauterization with the acid nitrate of mercury in the second. In these two cases Bright's disease was found at the autopsy; the kidneys, acting only very imperfectly, had not been able to sufficiently eliminate the mercury, hence the fatal results.

English authors, who have well observed this susceptibility in albuminuric patients, advise the disuse of mercurials in patients affected with Bright's disease, salivation occurring more rapidly in them than in the normal state.

The author again cites two other observations, in which accidents occurred from small doses of opium and atropine. In the former death resulted, in the latter—subsequent to an instillation of atropine for an iritis—symptoms of atropia poisoning occurred; the patient dying later, tubercular kidneys were discovered.

From the totality of these facts it results then that diseases of the kidneys render toxic, even when administered in small doses, certain active remedies, and that before ordering these it would be prudent to examine carefully into the state of the urinary secretions. Moreover, an important fact from a medico-legal point of view, in an examination relative to poisoning by the alkaloids and the medicines called active, one ought rigorously to note the condition of the kidneys, since, as has been seen elsewhere in an analogous case, a medicinal dose may cause death under particular circumstances.—*Journal de Medecine et de Chirurgie Pratiques.*

On the Absorption of Medicines Through the Mucous Membrane of the Vagina.

Dr. E. W. Hombuyer, of Franzensbad, has made several experiments to prove to what extent medicines were taken up through the mucous membrane of the vagina. The experiments were made in the following way.—Two tampons of clean cotton-wool, soaked in the solution of the substance, were introduced into the vagina through Ferguson's Speculum, after which two dry tampons were afterwards introduced. The tampons were allowed to remain for twenty-four hours. The urine examined for the medicinal substance was drawn with the catheter, so that it could not possibly be mixed with the substance in its passage out.

The persons on whom the experiments were tried were women from twenty to thirty years of age, in whom the vaginal mucous membrane was intact. The trials made in Prof. Peck's clinic gave the following results: iodide of potassium, used in a fifteen per cent. solution, was found in the urine two hours after its application, and was found in the same fluid twenty-four hours after the tampons had been removed. Ferrocyanide of potassium, in a five per cent. solution, was found in the urine three hours after application, and twenty-four hours after removal. Ferricyanide of potassium was used, and could be traced in the urine as ferrocyanide. Salicylic acid, dissolved with sodium phosphate, was found in urine three hours after application. Bromide of potassium, in a six-per-cent. solution, was found in urine three hours after application.

Iron was tried, in form of lactate and citrate, but was not found in the urine. It could not, however, be found in any quantity after the medicine had been taken into the stomach. Iron is found in the ash of normal urine, but it never appears to be present in the form of salt in solution. Lithium, in the form of chloride, was used, and was found in the urine two hours after its introduction. These experiments prove that medicine can be taken up through the vaginal mucous membrane. This fact may be of use to those engaged in gynæcological practice, and also in cases when it is desirable not to give it by the stomach.—*Rundschau.*

Poisoning by Salicylic Acid.

A case of poisoning by salicylic acid has been reported through the *Central Medical Times*, as having occurred at Przeglad-Tekarski, in Posen. It has also been discussed in the Medical Society of Posen.

In February, 1876, a peasant was seized with acute rheumatism, which manifested itself in the left knee and ankle joints. The physician, in order to lessen the severe pain, gave him a hypodermic injection of one-sixth of a grain of morphia, and ordered for him six powders of salicylic acid,—one to be given every hour,—each powder containing about 13 grs. of the acid. Immediately after the first powder, the patient began to perspire profusely, and continued constantly to increase perspiring. The patient's strength diminished so rapidly that his wife hesitated to give the fourth powder. The patient insisted on taking it, however, and immediately afterwards was seized with headache and vomiting, which continued during the whole night. He then became unconscious and groaned loudly. This state of unconsciousness only left him for a moment, when he turned to the doctor crying, "My head." All means used for his resuscitation were useless, and the patient died forty hours after he had taken the first powder. No *post-mortem* was made. It is not at all possible that this was a case of inflammation of the brain in connection with the rheumatism. All the symptoms indicated poisoning. By later investigations it was found that the salicylic acid used was old, and had undergone chemical change. This was evidenced even by the taste and smell. Stricker advises that the salicylic acid should always be examined as to its purity, and that the crystalline form alone should be used. If this rule had been followed in the above case, it is more than probable that it would have terminated favourably.—*Rundschau*

Treatment of Chronic Psoriasis.

Dr. Castells calculates that he has obtained forty-five cures of chronic external psoriasis by the following treatment.—He directs the patient to take a bath—with the view of causing the scales to drop off,—or of placing them in such a condition that they may be readily removed by the nails alone: once the skin is free, he touches all the red spots which have been covered by the scales with acetic acid; this quickly produces a marked sensation of heat, which only lasts about half-an-hour. Sometimes a single application suffices to obtain a cure; but at others it is necessary to make five, six, or seven, allowing at least twenty-four hours to elapse between each application, since by neglecting to do so we run the risk of producing a severe inflammation. In the larger number of the cures related by Dr. Castells, other remedies had been employed without any beneficial result.—*Revista Beunos Ayres.*

From Lyon Medical.

Indications for Opium and for Digitalis in Asystolism in Various Diseases of the Heart.

Two patients in M. Gubler's ward presented, —the one, a good example of the efficacy of opium in asystolism in certain diseases of the heart, especially when the lesion is situated in the aortic orifice; and the other a specimen of the cases in which opium would rather be pernicious, whilst the preparations of digitalis have been found to answer very well. (We omit the narration of the cases, being merely typical examples—the one of double aortic affection, the other mitral regurgitant.) The conclusion deduced is: "Thus opium would rather be pernicious in mitral affections of the heart, whilst it is often useful in disease of the aortic orifice. Dr. Huchard, who was the first to publish these facts in the *Journal de Therapeutique*, has invented a rather ingenious theory to explain them. According to him, opium produces congestion of the nervous centres, and digitalis, on the contrary, produces a local anæmia of them. But asystolism may occur in two opposite ways: Either from defects of nervous incitation of the preumogastrics, the result of an insufficient supply of the nutritive and exciting fluid to the encephalon, or, on the contrary, from what the ancients would have called *oppressio virium.* In aortic lesion, whether consisting in stenosis, or in insufficiency, the arterial circulation becomes enfeebled, and the various organs, at the same time, receive less red blood: this then is the case for the employment of opium, which increases the supply of blood to the brain."

In mitral lesions, on the other hand, it is the return of venous blood which is interfered with; the viscera, and notably the encephalon, are full of it. Digitalis ought to succeed.—*Gazette des Hospitaux.*

In the *Revue de Therapeutique Medico-Chirurgicale* mention is made of a death having occurred from attempts to dilate a narrowed os uteri by means of sponge tents. Peritoneal effusion, and an abscess containing an ounce and a-half of pus beside the neck of the uterus, were found *post-mortem.*

Treatment of Pruritus Vulvæ.

Dr. Castellir has employed with success in this very troublesome affection, whether the woman be pregnant or not, the following treatment.—

1st. Tepid lotions of an infusion of mallows.

2nd. The application, three or four times a day, of an ointment composed of

Calomel	1 to 2 drachms.
Camphor	1 scruple.
Starch, in an impalpable powder	½ drachm.
Sweet Lard	1 ounce.

Sometimes he adds 10 or 12 drops of laudanum.—*Revista de Ciencias Medicas.*

Antiasthmatical Cigarettes.

Belladonna Leaves	5	grammes.
Stramonium "	5	"
Digitalis "	5	"
Sage "	5	"
Tincture of Benzoin	40	"
Nitrate of Potassium	75	"
Water	1000	"

A decoction is made of all the leaves. Filter and add the tincture of benzoin and nitrate of potassium. Into this liquid separately are immersed sheets of blotting paper. At the end of twenty-four hours these sheets are dried and cut into squares about four by three, which are rolled into cigarettes.—*N. G.*, in *L'Union Medicale.*

Examination of Urine for Bile.

BY OTTOMAR ROSENBACH, M.D.

On account of the uncertainty and the short duration of the reaction introduced by Gmelin's as a test for bile, the author has introduced a new process, which is exceedingly useful for demonstration and is altogether a most satisfactory test. The urine containing bile is first filtered through clean white filtering paper, the latter will remain coloured intensely brown. The filtering paper is then taken and a drop of concentrated slightly fuming nitric acid is applied to its inner surface. The part touched by the acid is first yellow, then yellowish-red with a border of violet, then on the extreme periphery an intensely blue ring shows itself, finally the whole surface becomes emerald green.

The test ought to be made before the filtering paper becomes quite dry, as the colours will be exhibited more intensely.

The different colours as described remain sometimes for hours, so that they can be readily demonstrated to a class. The ordinary colouring matter of the urine will give no such reaction as that described.

From *Union Medicale du Nord-Est.*

Subcutaneous Injection of Defibrinated Blood—Cure.

BY DR. SCHMELTZ DE SCHLESTADT.

This observation clinically demonstrates that Karst (of Kreusnach) was not deceived in prophesying, from his experiments on rabbits, that subcutaneous injections of blood would (one day) be made in cases of profound anæmia in man. Schmeltz operated upon a man who had arrived at a state of extreme weakness, with hectic fever and alarming thoracic symptoms. He introduced beneath the skin forty grammes of defibrinated human blood, divided into eight injections of five grammes each. The blood-swellings were absorbed at the end of two days. The patient recovered strength with considerable rapidity. This operation is certainly harmless, and it is probable that it will be able to render essential services; true, it is not known what quantity of hæmoglobuline is absorbed, and what quantity remains in the tissues at the point of injection. Later experiments will doubtless show this.—*Gaz. Med. de Strasbourg.*

From *Gazette Medicale de Strasbourg.*

The same author (Dr. Schmeltz) records in the *Gaz. Med. de Strasbourg*, for June, a case of pelvic peritonitis, followed by obstinate vomiting and collapse, cured by subcutaneous injections of sulphuric ether. After describing the case up to the occurrence of collapse he goes on to say, "In spite of the means usually employed in such cases, we were totally unable to set up reaction; this condition lasted the whole of the following night. The next morning all consciousness was lost, and death seemed imminent. I then made a first hypodermic injection of fifteen drops of sulphuric ether, according to the directions of M. Verneuil. The prick was not felt, and yet in half a minute after the patient began to stir and to utter a faint cry. An hour afterwards another injection also of fifteen drops was given, followed in about a minute by another and a little stronger cry. Towards evening our moribund patient revived." The case subsequently did uninterruptedly well.

Apropos of this case, Dr. Schmeltz observes: "I believe that injections of ether are harmless; in fact an Englishman, Dr. Macan, has lately injected eight grammes of it at once, and shortly after four grammes more (acetic ether), a thing which I would be altogether inclined to do in urgent cases, such as after *post-partum* hæmorrhages."

At the *Societe de Medecine de Strasbourg* the following remarks were made upon the two foregoing cases:

"Prof. Boeckel says he regards the use of hypodermic injections of defibrinated blood as rational in cases in which transfusion appears to be indicated. It is known, in fact, that blood globules injected directly into the circulatory current are there for the most part rapidly destroyed and eliminated from the system. It is not then to this essential part of the blood exclusively that we must refer the results obtained by transfusion, and we may admit that the elements of which the serum is composed—elements eminently fitted for absorption—play some part in the useful effects which have been observed in these cases.

"As for hypodermic injections of ether, he has used them for some time, without having always obtained very marked results from them; only, instead of sulphuric ether, he employs nitric ether, which, on account of its slighter volatility, is more convenient to handle. M. Herrenschmidt has recourse to subcutaneous injections of Hoffman's Anodyne (in doses of one-half to one gramme each) in severe collapses, when the administration of stimulant medicines is no longer possible, or is useless. These injections are usually followed by a certain return of the natural powers, but these effects have always been very transient."

THE CANADIAN

Journal of Medical Science,

A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor.*

TORONTO, SEPTEMBER, 1877.

CANADA MEDICAL ASSOCIATION.

NEW BUILDING OF THE WINDSOR HOTEL,

WEDNESDAY, 12th of September, 10 a.m.

After the President's Address the following Papers will be read:—Crime and Insanity, by Dr. J. Workman, Toronto; Ovariotomy, by Dr. Rosebrugh, Hamilton; Vital Statistics, by Dr. A. B. Larocque, Montreal; Pernicious Anæmia, by Drs. Osler and Bell, Montreal; Addison's Disease, by Dr. G. Ross, Montreal; On large doses of acetate of lead in *post-partum* and other hæmorrhages, by Dr. J. Workman, Toronto; Gastrotomy and Ovariotomy, by Dr. E. Robillard, Montreal: Embolism of Central Artery of Retina, by Dr. Buller, Montreal; Excision of Knee, by Dr. Fenwick, Montreal; Two Cases of Tricuspid Stenosis, by Dr. Howard, Montreal; (1) Optical Defects, (2) Nasal Polypus, by Dr. R. A. Reeve, Toronto; Cause and Development of Epithelioma of the Eye, by Dr. A. Alt, Toronto; The Various Forms of Wounds and their Appropriate Treatment, by Dr. W. Canniff, Toronto. The Economic Aspects of Public Sanitation, by Dr. Playter, Toronto. Reports will be read by the Chairmen of the following Committees: Surgery, Dr. Richardson, Toronto; Obstetrics, Dr. Ross, Toronto; Medicine, Dr. Ross, Montreal; Medical Literature, Dr. Howard, Montreal; Climatology, Dr. Marsden, Quebec; Therapeutics, New Remedies, etc., Dr. Fulton, Toronto; Necrology, Dr. Osler, Montreal.

Gentlemen intending to read Papers will oblige by at once notifying the General Secretary, mentioning the titles thereof, in order that they may be added to this list.

A. H. DAVID, M.D., ED.,
Gen. Sec., Canada Medical Association.

"O! would some power the giftie gie us,
To see ourselves as others see us."

Our contemporary has an article in his last issue entitled "Putting on the Cap," which is about the richest thing in journalism we have ever met with, and we feel sorely tempted to place the whole thing before our readers that *they* may see how the cap *does* fit.

It appears that our banter in reference to "boy professors" sent the probe so deep that our "cotem." responds to the touch, loses his temper, and very unadvisedly acknowledges the whole corn, and then in the flurry of excitement makes himself ridiculous by trying to put *his cap* on *our* head.

It is very evident to all who are not wilfully blind, that while the cap fits *our cotem.* to a T, the shoe pinches him rather severely.

DEATH OF DR. DEWAR.—We regret to have to record the death of Dr. Dewar of Port Hope, who has long been known as a prominent and hard-working member of the Ontario Medical Council. As a practitioner, he occupied a high position in the estimation of both the profession and the public; and as a member of the Medical Council, he was ever most energetic in trying to, raise the standard of medical education in Ontario. His loss will be severely felt.

DIALYSED IRON.—Wyeth's dialysed iron is a preparation largely used in the States and abroad in cases where iron is indicated. By reference to our advertising columns full information will be obtained regarding this very valuable addition to the Materia Medica. Messrs. Perry Davis & Son and Lawrence, of Montreal, are agents for Canada, and will send a bottle to any physician sending his address.

VICTORIA MEDICAL FACULTY.—We have it on very good authority that negotiations have been going on for some time between the Montreal School of Medicine and Surgery (now affiliated with Victoria College, Cobourg) and the University of Laval, Quebec, with a view of the former becoming the Montreal Medical Faculty of the latter. It is believed that the negotiations will shortly be brought to a satisfactory termination.—*Canada Medical Record.*

American Pharmaceutical Association.—The Twenty-Sixth Annual Meeting will be held in Toronto, on September 4th, 5th, 6th and 7th, 1877. Many papers of interest will be read. Messrs. Seabury and Johnson, of New York, Lazell Marsh and Gardiner, McKesson and Robbins, F. A. Reichardt, Powers and Weightman, and other prominent pharmacists from the States will add to the attractions of the meeting by an exhibit, in their special lines, of goods. Mr. H. J. Rose, of Toronto, the Local Secretary, will be happy to give any information to those interested.

We have received a note from Dr. Geikie denying the existence of any antagonism between himself and Dr. Hodder, in reference to his election to the Medical Council. We are sorry if common report has so libelled him, but we gave it as we heard it.

Journalistic. — The *Canada Journal of Dental Science* has been revived. W. G. Beers, L.D.S., is the editor and proprietor. It is published quarterly at $1 per annum, and it is intended to issue it monthly next year if properly supported. We wish it all success.

Canada Medical Association.—Arrangements have been made with the Grand Trunk and Great Western Railroads and the Steamboat lines for return tickets at reduced rates. Members wishing to go to Montreal by boat and return by train will have to pay the full fare.

W. F. Evans & Co.—Jewellery, Watches. —We wish to call attention to the advertisement of W. F. Evans and Co., of 95 and 97 South Clark St., Chicago. Their *Romaine Gold* wares, both from their price and quality, are sure to command a large sale here and elsewhere. For fuller information see advertisement.

"Two Black Crows."—Two medical journals, each published by amember of a Medical School; one is claimed to be "the independent organ of the whole profession," the other is said to be "nothing but a School organ." Can our readers tell us which is which?

Mr. Simon is to have a testimonial: it is to take the form of a marble bust, to be presented to the College of Surgeons.

John Wishart, M.B., has been admitted a member of the Royal College of Surgeons, England.

The death of Professor Nathan R. Smith, of Baltimore, is announced. He is well known as the inventor of the Anterior Suspending Splint for fractures of the leg.

The eighth Annual Meeting of the American Association for the Cure of Inebriates will be held at Chicago, Illinois, September 12th, 1877. Important papers will be read and business transacted.

Dr. Bathurst Woodman, one of the staff of the London Hospital, and author of one of the best works on medical jurisprudence, died last month. He was yet but a young man.

Edmund St. G. Baldwin has been admitted a Licentiate of the Royal College of Surgeons, Edinburgh.

BOOK NOTICES.

Transactions of the Eleventh Session of the Medical Association of the State of Missouri, 1877.

Analysis of Seven Hundred and Seventy-four Cases of Skin Diseases, treated at the Demilt Dispensary in 1876, *with Cases and Remarks on Treatment.* By L. Duncan Bulkley, A.M., M.D.

University of Bishop's College Seventh Annual Announcement of the Faculty of Medicine, Montreal; Session, 1877-78.

Case of Aneurism of the Hepatic Artery, with Multiple Abscess of the Liver. By George Ross, A.M., M.D., and William Osler, M.D., L.R.C.P., London. Read before the Medico-Chirurgical Society of Montreal.

A New Method for the Quantitative Determination of Sugar in the Blood. By F. W. Pavy, M.D., F.R.S.

On the Physiology of Sugar in Relation to the Blood. By F. W. Pavy, M.D., F.R.S. Communicated to the Royal Society.

A Simple Mode of Cleansing the Nasal and Pharyngo-Nasal Passages. By Thomas F. Rumbold, M.D., St. Louis, U.S.

Removal of Hardened Secretions from the Nasal Passages. By Thos. F. Rumbold, M.D., St. Louis, U.S.

Fourth Annual Report of the Managers of the State Inebriate Asylum, Binghampton, New York, 1876.

Births, Marriages, and Deaths.

On the 14th inst., at the residence of the bride's brother, by the Rev. E. H. Dewart, assisted by the Rev. J. C. Gourley, of Mount Vernon, Indiana, R. S. Moore, M.D., of Mount Vernon, Indiana, to Bessie H., youngest and only surviving daughter of the late Richard Williams, Esq., of this city.

On the 31st inst., at St. Mark's church, Niagara, by the Very Reverend Archdeacon McMurray, Watts S. Lansing, son of General Lansing, to Agnes Maud, daughter of T. H. Watt, M.D., all of Niagara.

In this city, on the 3rd inst., John Hostetter, M.D., M.R.C.S., England, aged 44 years and 6 months.

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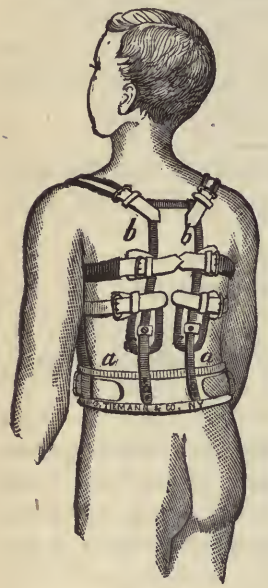

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THE

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Selections: Medicine.

THE APPLICATION OF OIL TO THE SURFACE OF THE BODY.

BY THOS. F. RUMBOLD, M. D., ST. LOUIS, MO.

During the last three years, I have prescribed the application of an inunction to the surface of the whole body of every catarrhal patient who was *thin* in *flesh*, and whose *skin* was *dry* and *rough*. Such patients are very liable, partly on account of this dry condition of the skin, to "take cold" during those seasons of the year in which there are sudden and great changes of temperature. I have repeatedly noticed that these applications materially assist to increase the warmth of the body and decrease the cold rigours that course up and down the back.

The beneficial effects following the inunction of children have been, as a rule, more marked than in adults. I think that this difference is mainly owing to the applications being made with more regularity, and with greater thoroughness on the former than on the latter.

I was first led to try these applications, in 1859, by reading an article written by the late Sir James Y. Simpson of Scotland. He contributed the results of his investigations on the "External Use of Oil" to the Edinburgh Monthly *Journal of Medical Science*, Oct., 1853. This paper is republished in his works on obstetrics. Second series, page 441.

From the thoroughness of the observations and the very satisfactory results following the applications of the oil externally, I resolved to try this means for the amelioration of a case that I then (1859) diagnosed acute phthisis. The effect of the applications was all that could be desired. The profuse night sweats were at once lessened and, after the fifteenth nightly inunction, entirely checked. The patient slowly recovered, made a trip to Pike's Peak—at that time a place of great attraction in the west—and at present is living in Wisconsin, in robust health.

I employed the applications on several other patients: whenever they could be induced to make the inunction in a proper manner, the benefits were marked, but the impossibility of procuring an oil that did not become exceedingly offensive on the body of the patient, compelled me to desist from using it, except in cases of children. As these little sufferers remained in the house the disagreeable smell offended the nostrils of their parents only, who were ready to undergo almost any discomfort so that it pointed to the patient's recovery.

As we now have an article, called by the arbitrary name of "vaseline," a product of petroleum, which is inodorous, and remains so while on the body and which may be applied to the skin of the most delicate patient, not only without the least discomfort in any respect, but causing a pleasurable sensation, the time for reviving the practice of making external inunction has fully arrived, not to be again driven into obscurity by the disgust of the patient for the disagreeableness of the agent applied.

I think the most appropriate manner of again drawing the attention of the profession to the advantages of the applications of inunctions to the whole of the surface of the body, is to reproduce so much of the original investigator's paper, as will show both the history of its ori-

gin and the results of its practice, as achieved by him.

The whole article is so decidedly practical, and written in such a connected manner, that it makes it difficult to quote from it without, at the same time impairing, to some extent, the force of that which is quoted.

In this article he says, that his attention was called by a medical friend "to the healthy and robust appearance of the operatives in the woollen manufactories," and that the operatives "themselves attributed the immunity which they enjoyed, from consumption, to the free external application of oil to their bodies which occurred in various parts of the manufacture of woollen fabrics."

* * * * * * *

Of the cause of the comparative exemption, some have attempted to explain that it was their hygienic *state* that was the possible result of their healthy condition, or their exemption from chest complaints, or that it was attributable to the sanitary nature of the factory labour itself.

These two supposed explanations he examines carefully, and concludes as follows:—"In other words, the multiplied testimony adduced regarding the health of the workers at the numerous cotton-factories of this country shows that the mere nature of the work at the mill produces no immunity in those employed from consumptive and tubercular affections, and consequently it follows, that if in any variety of mill-working, such an exemption were found, that exemption could not be ascribed to the mere character of the factory labour or mill-work itself. And when we find that, while the cotton mill-workers are not free from consumption and struma, the wool-mill workers are comparatively exempt, we must evidently search for the cause of this difference and exemption in some peculiarities connected with the wool-making itself."

"The great difference and peculiarity in woollen-mills consists in the fact that while the hours, the occupation, &c., are much the same in each, in the woollen-mills a very large quantity of *oil* is used, and the bodies of the workers are brought in various ways freely in contact with it. It is, I believe, in this one item that the great difference between cotton-working and wool-working consists; and it is to this material, the oil, as freely used in some of the processes of the wool-factories, that the operatives themselves universally and, as I believe, properly, attribute the salutary nature of their occupation."

"In corroboration of the truth of this popular belief that the good effects of the woollen factory labours are ascribable to the oil employed, I have to state two points, viz., that—"

"*First*, Similar exemption from scrofula and consumption is observed in other classes of workmen whose employment bring them in the same way freely in contact with fats or oils, as tallow chandlers, oil men, &c., and—"

"*Secondly*, In the wool factories the degree of exemption among operatives themselves is by no means equal in all the processes of the manufacture, but is regulated by the more or less 'oily' nature of the departments of work in which they are engaged in the mills; so that they in general, markedly improve in appearance and health when set to work at the more oily processes; and often as markedly decline after leaving them."

This is followed by giving the weight of some of the workers at the time they commenced to operate in the more oily employments, and weighing them after they had been at work a few months, showing a very marked increase. "The fine appearance," he adds, "of the young workers, their rapid improvement when set to work in oil, their declension when they discontinue it, leave no doubt on my mind that the oil is the salutary agent."

In mentioning the mode or channels by which the oil may enter the system, he says, "Under such circumstances, we may suppose the oil to enter the bodies of the operatives by one of two channels, either by inhalation through the mucous membrane of the lungs, or by cutaneous application and absorption." He concludes on this point that—"In all likelihood the more important, if not the only channel by which the oil gains access to the system in the case of the woollen operatives, is by its cutaneous application." * * * * "In the living human subject, we can readily gain clinical proof of the facility with which warm oil can be rubbed into the skin by watching the rapidity with which the liquid disappears from, and is absorbed

from the surface of those who use oil-frictions, and particularly in the case of such persons as have followed the practice for a considerable time, and in whom the power of cutaneous absorption is hence increased. Besides, we have a further proof of this cutaneous absorption of oil, in the fact that those who use oil-frictions show exactly the same special constitutional effects from this mode of introducing it as those who introduce oil into the system by swallowing it."

Of the systematic oil inunction, as a medicinal measure, he says:

"In tubercular and other cases, these effects are sometimes as distinctly, though perhaps not as frequently, obtained from the external inunction of olive oil as by the swallowing of cod-liver oil. I have seen a similar amelioration in the constitutional and local symptoms of the malady, and a similar improvement in the general health occurs under the one as under the other practice; one may, if necessary, be sometimes temporarily substituted for the other; or both may be employed at once when there is no contraindication to their combined and more certain action. *The restoration of the function of the skin, and the suppression of the hectic perspiration, more rapidly and surely follows external inunction.** The increase in the weight of the body, which has been so much and justly insisted on as a favourable sign under the internal use of cod-liver oil, is occasionally most marked under the external use of olive oil. In a case in which this increase was specially watched, under external oil-inunction alone, the patient, who was carefully weighed, in forty-two days increased 24 lbs. in weight, a rate nearly as high as any, I believe, ever observed to occur under the employment of cod-liver oil internally. This patient's stomach could not retain cod-liver or other oil in any form that was tried. I have seen a child two years old increase in weight an ounce a day, for eight weeks, under assiduous oil-inunction, its stomach having for some time previously rejected oils, and most other food, when swallowed. And in the external as in the internal use of oil, increase of weight obtained, is often greater than the mere weight of the oil introduced into the system."

In mentioning the diseases and circumstances in which oil-rubbing is indicated he says, "In inanition, by whatever case produced, and *particularly* when dependent on mal-nutrition or mal-assimulation, and combined with a *dry* or *disordered state* of the *skin*, the practice is often most advantageous."* * * * "*The practice itself guards weak constitutions against the effects of changes of temperature and weather; and the feeling of cold and tendency to catarrh and chilliness, attendant upon various debilitated states, is sometimes entirely arrested and averted by oil-inunction.**

He recommended that the oil selected ought to be bland and inodorous; that it should be applied moderately warm, and with a considerable amount and duration of friction; that the oil and friction should be applied to the whole cutaneous surface of the trunk and extremities, using "about a wine glass of oil;" that the application may be practised twice or oftener in twenty-four hours, especially with children; that the best time for a single daily oil-inunction is immediately before retiring to bed, and that to save the bed cloths, the patient should sleep in a dress of flannel, linen or other material that stretches beyond the feet. He also recommends that the body be occasionally sponged with tepid water immediately before an application is made.

The greatest hindrance to this practice was, as I have already mentioned, the impossibility of procuring an oil that was inodorous; this, I think, is the only reason why Dr. Simpson's suggestions have been allowed to slumber for years, but happily this obstacle is now removed, as we have in "vaseline" an article that is perfectly inodorous, and is not liable to become rancid on the body, as does the olive oil. The next objection to the practice is its tediousness, as it requires the daily dedication to it of the ten or fifteen minutes that is usually required to perform the inunction fully and perfectly.

The best means of applying the inunction is with a woolen rubber. This rubber is made of ten or twelve thickness of flannel, these layers are stitched on the face-side of a cotton

——* The italics are mine. R.

——* The italics are mine. R.

glove, in this way it is more easily held by the person making the application.

About one teaspoonful of the "vaseline" is spread on the woollen rubber—after it is once saturated by the inunction—and held close to the fire until it is *quite hot*, it is then applied in this hot condition to the surface of the body with considerable pressure and with a rapid motion.

The room in which the inunction is applied should be warmed to about 90° F. All of the clothing of the patient should be removed except the stocking-knit drawers and stockings. The exposed portion of the body and the arms should be well rubbed with the *hot* woollen rubber, upon which the "vaseline" has been placed. The rubbing should occupy from three to seven minutes on an adult, and half this length of time for a child. At the completion of the anointing of this part of the body, the stocking-knit under shirt should be put on. The drawers and stockings are removed and the remainder of the body treated in the same manner, occupying about the same length of time.

The immediate effect of this application on all individuals who are *thin in flesh*, is the production of a sensation of warmth over the whole of the body, the feet and the hands included, particularly so, if these extremities have been habitually cold. The sensation of cold chills coursing up and down the back, between the shoulders, is soon arrested, and if the patient has been subject to night sweats, these also are soon abated or they will entirely disappear.

Of course the effect of the friction is to redden the surface, by increasing the circulation, and thus induce a warmth of the body, but I believe that it is due to the inunction that this warmth is made *permanent*. The following experiment, which I have had my patients try quite a number of times, indicates that the permanency of the warmth is owing to the presence of the "vaseline," viz.: To rub one extremity with a hot flannel alone, and another with a flannel that had the hot "vaseline" on it. The extremity having the anointment applied to it remained warmer during the day than the one rubbed with the hot flannel only.—*St. Louis Medical and Surgical Journal.*

TREATMENT OF THE VARIOUS FORMS OF PRURITUS CUTANEUS.

BY R. W. TAYLOR, M.D., NEW YORK.

As a sedative to the skin, applicable by means of a general bath, I know of no agent as good or certainly none better than the sulphuret of potassa, the only contra-indication to which is its bad odour. Two to four ounces of this salt with one or two pounds of borax or sal soda, dissolved in thirty gallons of water, will form a bath suitable for severe and extensive cases of pruritus. This must be repeated generally at night, every day or every second day. It is always, in my judgment, well for the patient to lie down and rest, with moderate covering over him, after a bath, as exercise afterwards is followed by an aggravation of the symptoms. My practice is, that after the bath, the skin shall be well anointed, and I have used, and can recommend, the following remedies:

℞ Glycerin.....℥iv.
Acid. carbol .....℥i.
Ext. bellad.....gr. xx.
Aq .....℥ss.
M.

This must be well but carefully rubbed in the skin until it has a soft, unctuous feel. Then again, equal parts of vaseline and glycerine with one drachm of carbolic acid to each four ounces of the ointment is sometimes productive of great relief.

℞ Acid. carbol .....℥ii to ℥iv.
Glycerin .....℥ii.
Aq .....℥vi.
M.

This is to be carefully sopped on the itching surface, until it is quite soft and unctuous. Again, there are cases in which fatty matters are useful, combined with carbolic acid. Such prescriptions as follow have proved more or less efficacious in my hands:

℞ Vaseline .....
Ung. simplicis .....aa. ℥ii.
Acid. carbol .....℥iss.
M.

℞ Sulphuret potassae .....℥iii.
Spts. camphor .....℥ss.
Glycerin .....℥i.
Aq. q.s. ad .....℥vi.
M.

℞ Picis liquidae .....ʒii.
Potassæ causticæ .....ʒi.
Aq. destillat .....ʒv.
M., and strain.

This must certainly, in pruritus, always be diluted, and I have used it in proportions of from two drachms to half an ounce to eight ounces of water.

℞ Spts. camph .....ʒss.
Boracis .....ʒii.
Aq .....ʒvi.
Glycerin .....ʒii.
M.

Care must always be taken that the mixture is well shaken.

℞ Iodoform .....ʒi.
Ether. sulphuric .....ʒii.
Glycerin .....ʒi.
M.

The iodoform must be finely powdered.

℞ Chloral camphor .....ʒss.
Glycerin .....ʒiss.
Aq .....ʒvi.
M.

℞ Acid hydrocyanic dil .....ʒss. to ʒi.
Spts. camphor .....ʒii. to ʒss.
Glycerin .....ʒi.
Aq .....ʒiii.
M.

Sub-nitrate of bismuth or calamine, or precipitated chalk, in the proportion of two drachms to the four ounces of the foregoing mixture, may often be added with benefit. Then again cyanide of potassium may be useful, in cases of limited extent, used with caution and generally not stronger than one drachm to four ounces of water. In cases of limited extent the old black wash is often very beneficial, and it has in my experience often cured severe instances of intertrigo.

℞ Fol. belladonnae .....
Fol. hyosciami .....aa. oz. ii.
Fol. aconiti .....oz. i.
Acid acetic .....oz. viii.
M.

The leaves must be reduced to a tolerably fine powder and then mixed with the acid and allowed to macerate two weeks. When ready it forms a heavy dark coloured liquid of pungent smell. Of this, two fluid drachms to the gill of water makes a very efficacious anti-pruritic, and a greater strength even may be used.

℞ Tr. opii .....oz. i.
Spts. camphor .....oz. ss.
Liq. plumbi subacet .....dr. i.
Glycernæ .....oz. iss.
Aq. q. s. ad .....oz. vii.
M.

To be applied continuously on lint. If to this we add half an ounce of the subnitrate of bismuth we have one of the most reliable and efficacious lotions for that common affection of hot weather, prickly heat, which I have ever used, and I speak feelingly. It may be well to mention general tan-baths as being indicated in some cases, and the infusion of quassia as a lotion well spoken of by some writers.

I have been struck with the great relief often produced by preparations of the oils of peppermint or spearmint. They often relieve itching instantly and induce a delightful sensation of coolness. It is not well to use the oils in a pure state but rather the essences variously diluted with water. In severe cases equal parts of essences of peppermint and glycerine are very efficacious painted on the parts with a camel's hair pencil. The oils may be used in the form of ointment in the proportion of from half to one drachm to the ounce of simple cerate.

There are several anti-pruritic powders which are sometimes indispensable. The most important is that which is commonly called Anderson's powder. It is formed as follows:

℞ Pulv. amyli .....oz. i.
Pulv. camph .....dr. iss.
Zinci oxd .....oz. ss.
M.

This must be carefully made, the camphor being reduced to an impalpable powder and then thoroughly incorporated with the other ingredients. It may be either lightly dusted upon the parts, or it may be quite copiously rubbed into the meshes of linen lint and then applied.

Dr. Thomas gives the following very useful formula, the chief agent of which is corrosive sublimate, which as a solution with various adjuncts has been extensively used as an anti-pruritic:

℞ Hyd. bichloridi .....dr. ss.
Tr. opii .....oz. ss.
Aquae .....oz. vii.
M.

This should be sopped on the parts freely and then kept continuously applied on lint. I have used this salt in various forms of pruritus, and have come to regard it as of benefit quite frequently. It must always be used cautiously, especially on a surface of some size. Solutions of nitrate of silver deserve especial mention, applied in various strengths, sometimes particularly in old cases with much thickening of the mucous membrane as strong as from one half, to a drachm and a half, to the ounce of water. The parts are to be painted carefully and then kept apart by lint soaked in water or any lotion used rather less frequently. But of still great value if judiciously and well applied are solutions of caustic potassa and soda of strengths similar to those of the nitrate of silver.

These are generally indicated in old cases with much mucous membrane hypertrophy. When this latter condition exists, it is fair to say that the itching will continue as long as it is not especially treated, and that the symptoms will generally be relieved in proportion as the thickening grows less.

Suppositories either rectal or vaginal may be remembered, for which we have numberless ingredients, some of which I have mentioned. My friend Dr. F. Leroy Satterlee has used with more than ordinary benefit, as a local application by means of a brush, the fluid extract of conium.—*Archives of Clinical Surgery.*

Oil of Turpentine in Sciatica.—In the Edinburgh *Medical Journal*, for March, there is an interesting paper by W. Allan Jamieson, M.B, M.R.C.P.E., on "The Treatment of Sciatica by Oil of Turpentine." He gives it in the morning, before breakfast, in the following formula :—

℞	Ol. terebinth,		ʒij
	Ol. ricin.,		ʒiv
	Tinct. card. co.,		ʒj
	Mucilag. et aq.	ad.,	ʒij.

This draught is given every third or fourth morning, if necessary, but one dose is generally enough. The beneficial effects are supposed to be due to some pecular action on the intestinal mucous membrane, as pointed out several years ago, in a paper by the late Dr. Warburton Begbie, "On the Actions and Uses of Turpentine."

ACUTE TUBERCULOSIS OF SYNOVIAL MEMBRANES.

M. Laveran, of the Val de Grace Hospital, records (*Le Progres Med.*, Oct. 25) the following instructive case :—A young soldier, twenty-two years of age, who had served only eight months, was admitted into the hospital on June 21st, 1876. He was well nourished, but had never been robust, and had in infancy suffered from an attack of right-sided pleurisy. Six days before his admission he began to suffer from painful swelling of the ankles and knees, the latter being tender and the seat of much effusion, especially the right. There was but slight pyrexia, and no cardiac complication. The case was regarded as one of subacute rheumatism, but on the next day the temperature rose to 102·2°; the patient began to suffer from cough; there was some dulness at both pulmonary bases, pleuritic friction at left base, and sibilant and mucous rales over the whole chest. From this date onwards the pulmonary signs became more marked, with increasing dyspnœa, cyanosis, and a temperature ranging from 102° to 105°. Death took place on July 4th, fifteen days after admission, and twenty-three days after the first onset of arthritic pain. The post-mortem examination revealed acute miliary tuberculosis, the pleuræ, lungs, peritoneum, liver, spleen, and kidneys presenting grey granulations in abundance. Four larger tubercular masses, composed of aggregated granulations, occurred in the pons and medulla, but did not appear to implicate any nerve-roots. There was no meningeal tubercle. Both knee-joints were examined; in each there was an excess of transparent synovia, most in the right, and the injected synovial membrane, with its fringes, was in each joint studded with slightly elevated greyish granulations, the size of a pin's head. Under the microscope the tubercles were found to arise in the deeper layers of the synovial membrane, and to present a central granular opacity, with a marginal zone of nucleated cells. Giant cells, of round form, granular contents, and oval nuclei along their margins, occurred in the centre of every granulation. These articular granulations precisely resembled in structure the miliary tubercles infiltrating

the lungs and other organs. M. Laveran draws attention to the occurrence of arthritis as the first symptom of a general tuberculosis, and that of so predominant a character as to lead to a mistake in diagnosis which was rectified as the pulmonary signs became more marked. He believes that the articular pains frequently complained of by the subjects of acute tuberculosis, are probably indicative of the implication of the synovial membranes in the disease; and, further, that some fatal cases of "acute articular rheumatism," accompanied by pleuritis, meningitis, &c., may really be of tubercular nature. The apparently older date of the masses in the pons and medulla in this case was, he believed, simply due to the nodules being formed by the coalescence of a large number of granulations similar to those found elsewhere in the body, and that the outbreak was, in fact, nearly simultaneous in all parts. The instance of a chronic pleurisy with adhesions on the right side was the only evidence of antecedent disease in this case.

Remedy for Headache.—Having observed that bromide of potassium, in twenty or thirty grain doses, and tincture of aconite root, separately, relieved more cases than any remedies I had previously exhibited, I experimented with large doses of the drugs combined. For several years I have been in the habit of giving in these cases sixty grains of the bromide of potassium and ten drops of the tincture of aconite root, in a wineglassful of water; the same to be repeated in an hour or two, if the head be not relieved; but a repetition of the dose is very seldom required. In the case of ladies and others who wish to have the remedy always at hand, or who are about to start on a journey, I supply them with the following mixture:

℞ Bromide of potassium, . . ʒ ij.
Tincture of aconite root, . . ʒ j.
Distilled water, } . . āā ʒ ij.
Simple syrup, }

M. S. Take a dessertspoonful in some water every hour until relieved.—*J. E. Lockridge, M.D., in Am. Pract.*

Surgery.

A NEW METHOD OF CURING POPLITEAL ANEURISMS.

BY MARTIN BURKE, M.D.,

Third Surgical Division, Bellevue Hospital.

Early in the autumn of 1876, while Junior Surgeon of the Third Surgical Division at Bellevue Hospital, I happened to read an article in the *Medical and Surgical Reporter* upon a new method of curing popliteal aneurisms, by the employment of a conical shot-bag suspended from a height by a rope, the apex of which cone should press upon the femoral artery in Scarpa's space, and so cause all pulsation to cease in the aneurism below. This article was very brief, and the medical gentlemen, whose name I have unfortunately forgotten, reported a case as having been cured by this apparatus, without pain and within a very brief period. Shot-bags had been frequently placed upon arteries before, either to diminish pulsation below, or even for the cure of aneurisms, but I had never before seen or read of one having been suspended from a height, so that its apex just rested upon the vessel below. Shortly after this Nathan Corbin, a coloured man, aged thirty-nine, was admitted to our wards, suffering from a large but partially solidified popliteal aneurism, in which, however, *bruit* was audible and pulsation forcible. The patient stated that his aneurism had been growing for about two years. Three weeks before his admission he became the patient of a physician who had promised to cure him in nineteen days, and, as his pain at that time was agonizing, he readily consented. An ordinary amputating tourniquet applied in Scarpa's space controlled the femoral artery, but, the patient not being able to endure sufficiently firm pressure, pulsation still continued in the aneurism. At the end of nineteen days, although the aneurism was comparatively hard, and notwithstanding that when the tourniquet was removed his pain was mild to what it had been before, he, nevertheless, refused to continue under his physician's treatment, and was accordingly admitted to Bellevue by Dr. Crosby, Visiting Surgeon, September 20, 1876. Dr. Crosby, having consulted with the house-staff,

was about to decide upon digital compression, when Dr. Pell, our Senior Surgeon, to whom I had communicated the article in the *Medical and Surgical Reporter* before mentioned, suggested the use of the shot-bag suspended from the ceiling. Dr. Crosby having consented to his plan, one of our division-staff recommended that a hollow rubber tubing should connect the bag and rope, so as to make a perfectly elastic apparatus. The tension of the bag upon the artery was regulated by having a hook attached to the neck of the bag, which could be readily slipped into one of the links of a chain which hung to the end of the rubber tubing. The bag was steadied by a long, thin bamboo rod, which reached down the centre of the bag, when filled with shot, almost to its apex. Thus prepared, the bag was now suspended from the ceiling by a rope and pulley, its apex, an inch in diameter, resting upon the femoral artery near the base of Scarpa's space. We now found that, by raising or lowering the bag by means of the chain, pulsation either increased or diminished respectively in the aneurism. As we did not in the beginning wish to shut off all pulsation, we allowed it to rest slightly upon the artery for twenty-four hours; and then, finding that the patient suffered no pain, we increased the pressure, and caused the popliteal aneurism to cease pulsating.

This pressure was carefully continued for eight days, and then, all pulsation having ceased in the aneurism, the bag was removed. During this period our patient took but two grains of opium; he suffered no pain, and but little inconvenience; and, although the cone was steadily maintained in one position, there was no excoriation of the parts beneath. I have omitted to mention that the patient's leg was well wrapped in cotton. He was discharged October 10th, one month after admission.

Dr. James R. Wood now admitted a private patient, with a popliteal aneurism as large as a goose's egg, which had been growing for three months. No cure had been attempted. The shot-bag was applied February 22nd, 1877, and March 10th the aneurism was pronounced cured. During his treatment the patient received about four grains of opium, the shot-bag producing little or no uneasiness. Patient slept heavily, and for the first ten days frequently neglected to keep the bag in place directly over the artery, so that we were compelled to secure it in position by tabs fastened to the apex of the cone, and reaching to about the patient's thigh. This explains the unusual length of time in effecting a cure.

Our next patient was Joseph Temple, who had been in our wards six months before, suffering with a popliteal aneurism of right leg, for which his femoral artery had been ligated. He had been discharged cured. He now returned with another aneurism the size of a hen's-egg in the left popliteal space, Dr. James R. Wood again admitting him to his wards as a private patient. The shot-bag was applied in this case March 18th; and March 24th, six days after, all pulsation had ceased in the aneurism. For security, the apparatus was allowed to remain on some days longer, and then permanently removed. One week later the patient returned to his home. These three cases illustrate most strikingly the ease and security of using such an apparatus as the one I have briefly considered, not only for popliteal aneurism, bnt also, with certain modifications, for some cases of secondary hæmorrhage, and for aneurism of other arteries.

In conclusion, I will describe, in a few words, our entire apparatus as it is now in use. The shot-bag should be made of canvas, in the form of a flattened cone, and its apex should measure about one inch in diameter. Either a rounded piece of cork or of India-rubber, one inch in thickness, should be fitted accurately to the inside of the apex of the cone. A long, thin rod, reaching down to and resting upon the rubber in the bag, should be inserted and held directly in the middle of the cone, while shot is being poured around it, and until the requisite weight is attained, say about twelve pounds. A piece of canvas of the requisite size, with a hole cut in its centre for the passage of the rod, is now tightly stitched over the base of the bag. A stout wire hook being now fastened securely both to the centre of the broad base of the cone, and to the rod as it emerges from that point, to prevent it from slipping from its bed, and tabs having been sewed to the conical point of the bag, it is ready for use. And now to suspend

it: A small pulley is driven into the ceiling, through which is passed a rope, both ends of which are to be attached to the wire hook in the shot-bag, with this difference, that one end is passed through rings fastened to the rod, and helps, in a measure, to keep it in place. To the free extremity of the outer end of the rope the rubber tubing is secured, and from a hook in its free end a large linked chain connects it with the hook in the centre of the base of the shot-bag. The chain is merely to regulate the amount of pressure which it may be desirable to employ. Such, then, is this apparatus, which is simplicity itself, and which is at the same time certain in its results and comfortable to the patient in its application. I believe that it is a slight advance, and I trust that it may prove a valuable one, in our knowledge of the treatment of aneurism.—*New York Medical Journal.*

The most Frequent Cause of Difficult Micturition in Old Men, according to Dr. Busch (*Centralblatt f. d. Med. Wissenchaften*) is not only, as is generally believed, hypertrophy of the prostate, but may depend upon pure hydrostatic causes, which he claims to have demonstrated by a number of preparations. In youth, the sphincter vesicæ is quite close to the point at which the opening force is most exerted. But little of the propulsive power is therefore lost, and the stream can be projected to a considerable distance. At the period of puberty the sphincter is further backward, and the urethral walls must therefore be much more distended. Some propulsive force is thus lost, and the stream is less forcible. Should an hypertrophy of the prostate be now developed, the internal orifice would be found upon an elevation, which dips downward in all directions, but particularly backwards, where more or less deep depressions are liable to be found. If the bladder now contract, the force is exerted not only around the internal orifice, but also upon the lateral depressions; this would naturally tend to close the urethra still more. The ability of the patient to pass his urine without the assistance of the catheter will now depend entirely upon the preponderance of the force exerted from above, over that from the lateral parts of the bladder. It is clear, then, that this difficulty, although usually associated with hypertrophy of the prostate, may occur without any such enlargement, and may exist as a simple depression. The proper treatment to be pursued seems evident. Frequent micturition may prevent the formation of these hollows; the catheter should therefore be diligently employed from the time the affection first manifests itself.—*Clinic.*

CLINICAL LECTURE ON CONCUSSION OF THE BRAIN.

BY D. HAYES AGNEW, M.D., LL.D.,

Professor of Surgery and Clinical Surgery in the University Pennsylvania.

Gentlemen:—This young man was brought into the hospital four days ago. He was playing base-ball when he was struck very heavily on the back of the head with a bat, and if you look you can still see the marks of the blow. The blow was so severe as to knock him down unconscious, and he was immediately conveyed to this institution, lying in a semi-comatose condition. This is a characteristic sign of concussion of the brain, but he had others as well. He had nausea, with some vomiting, a lowered temperature, a feeble and frequent pulse. At the present time he is steadily recovering. His pulse is now about 80, and recovering its force; the temperature is likewise restored to the normal. He has no longer the irritability of the stomach, but complains of a severe headache and feels his limbs very weak. This is a typical case of concussion of the brain.

Now, concussion is one of the conditions of the brain, the pathology of which it is very difficult to analyze. It is usually divided into degrees, a mode of division which I approve of. We may have a simple jar of the brain. The disturbing force is transmitted along the spinal column to the brain, and you have such a molecular disturbance that confusion of ideas follows, and the person staggers and falls to the ground. He may, however, walk a few steps first.

In a degree beyond this the shock may be so great as to cause laceration of blood vessels, and extravasation of blood between the brain and arachnoid, or in the substance of the brain itself, resembling localized apoplexy. The extravasation may be so small as to give rise to symptoms of pressure, or it may be so widely diffused as to cause a fatal form of coma, with complete paralysis of the vaso motor nerves. It is not unlike the condition of congestion preceding inflammation. There is accumulation of blood in the vessels and free transudation of serum. We sometimes find this fluid in the ventricles and in the inferior portion of the brain, as it gravitates. Sometimes the whole

of it descends to the spinal cord. In many fatal cases, where, on autopsy, there is no perceptible lesion, we find this peculiar accumulation of fluid in the spinal canal. In a case which we recently had in this institution, we could discover nothing on post-mortem examination but an unusual quantity of fluid in the spinal canal: it was absolutely full. It was demonstrated that the serum had gravitated from above.

Treatment. The case before us is a rather mild form, probably without absolute lesion. Usually, rest in the recumbent posture will suffice to establish recovery. In this case nothing more seems necessary. When the concussion is more pronounced and the patient remains in a stupid condition, apply external warmth along the spine, to the extremities, and the epigastric region. Be very cautious about giving stimulants to a person suffering from concussion, because the vessels of the brain become congested and stimulants would increase the difficulty. When the system is in such a state as is produced by concussion, the stomach does not absorb readily; we must wait for evidences of action before repeating a dose, if one has already been given. Many persons are killed by neglect or ignorance of these principles. No action of the remedy is seen, and dose after dose is given. When the patient reacts, absorption begins to take place, and a large quantity enters the circulation at once; the heart is lashed into fury and the vessels of the brain become too much congested. After the patient has been suffering for a greater or less length of time, we may then give a stimulant cautiously.

When reaction is set up we get a full, bounding pulse, heat of surface, suffusion of the eyes and intense headache. At this stage we must apply persistent cold to the head, and sometimes blood may be abstracted locally; we may likewise give an active mercurial purge; this I consider the best treatment. If the head symptoms continue, apply a blister and give small doses of a mercurial. Bear in mind, that after any head injury, the patient must not sit up too soon, but he should be kept in the recumbent position until all the symptoms have disappeared.—*The Hospital Gazette.*

REMARKS ON THE TREATMENT OF TINEA TONSURANS.

BY ROBERT J. LEE, M.D., F.R.C.P.,

As it is well known that some of the remedies used for ringworm are less liable to produce inflammation of the skin than others, it is most desirable to give a preference to the former, the production of inflammatory changes seeming rather to retard than promote the action of a remedy. On this principle I have, during the last twelve months, used carbolic acid, the most certain agent for the prevention of the development as well as for the destruction of microspores, with decidedly better results than were observed when iodine, tincture of the sesquichloride of iron, or any other agents had been employed, including Goa powder, which has lately been recommended as superior to most others. There is one important point which must be attended to under any circumstances; and this is, the necessity of much more frequent application of any remedy than is usually considered requisite, for the reason that most species of microspores require only a few hours to advance from one stage of development to another, and that, in order to prevent any increase in the number of the spores, though we may not be able to destroy them, it is absolutely necessary to apply the remedy at intervals of not less than six hours. The best preparation for this purpose is a combination of sulphur and olive-oil in equal parts, to which carbolic acid in the proportion of two grains to the drachm is added. To prevent the contact of the fingers of the person who applies it, and who is liable, without caution, to take hold of a child by the neck or shoulders, and thus produce the disease on other parts, a small sponge or brush should be used. This must be done every four or six hours, the head being washed with Castile soap and warm water night and morning before the application of the carbolised oil. If a stronger solution of the acid be used, as, for instance, in the proportion of 1 to 10, it will be found that a certain amount of inflammation is produced, and the frequent application of such a mixture cannot long be pursued. After making various experiments of this kind, I have found the preparation given above most satisfactory, and

believe that the treatment of ringworm with carbolished sulphur oil may be recommended as superior to any other in common use.

As a matter of experiment, there is no doubt as to the fact that no agent with which we are acquainted is to be compared to carbolic for the destruction of organic life without destruction of organic matter, and that no agent is so useful in treating parasitic diseases of the skin, from the fact that, in proportion to its destructive action on the organisms which produce them, it is the least injurious to the cutaneous tissue.

Attention to details is of such importance in the treatment of tinea tonsurans, that it is necessary to add to the above directions the remark that the hair should be cut close with scissors, and that the oil should be rubbed into the skin for a few minutes. The treatment should be continued for at least a fortnight after the disease has apparently been cured. Either of the following prescriptions may be used. The first has the advantage of not becoming thick or dry from evaporation, while the second is cleaner and cheaper.

℞ Sulphuris precipitati, zinci oxidi, āā ʒj; olei olivæ f. ʒj; acidi carbolici gr. xvi.

℞ Sulphuris precipitati, zinci oxidi, āā ʒij; glycerini, aquæ, āā f. ʒiij; acidi carbolici gr. xvi. —*Brit. Med. Journal.*

There have been frequent assertions made that the Esmarch's bandage is liable to be followed by various unfortunate and even disastrous results; and cases are from time to time reported where this certainly seems to have been the fact. These disadvantages, if I may so call them, may be arranged under a half dozen different heads: I. Hæmorrhage taking place immediately after removing the constriction, or at a period sufficiently late to be called secondary bleeding. II. Paralysis of the nerve trunks of the extremity. III. Greater tendency of the flaps, made in amputations, to slough. IV. General gangrene of the limb. V. Thrombosis and subsequent embolism. VI. Pyœmia, by forcing septic matters towards the centre, when the bandage is used in patients suffering from suppurative affections.—*John B. Roberts, M.D., in Archives of Clinical Surgery.*

RESECTION OF THE MEDIAN AND ULNAR NERVES.

Braun (*Centralblatt fur Chirurgie*, 1876, p. 536, from *Deutsche Zeitschrift fur Prakt. Med.*, No. 25) gives the following case. A labourer, 20 years of age, cut himself in the left arm; the wound healed, but the fingers remained useless. Ten months after the accident he came under observation. There was a scar in the upper third of the arm, within the biceps; under this several painful nodules the size of cherry-stones could be felt. The hand was cold, and covered with thin, smooth, brownish-red skin. The nails were thick, crumpled, split, and furrowed. The interosseous muscles and both balls were atrophied; the symptoms, in a word, showed division of the ulnar and median nerves. There was no hope excepting from operative interference.

By the aid of Esmarch's apparatus, and under carbolic acid spray, the central ends of the divided nerves were laid bare and resected. The peripheral ends were found with difficulty, since they had become retracted nearly an inch, and were somewhat deflected from their normal position. They were freshened and joined to the central extremities by fine sutures, and, the wound being closed, were kept in position by a right-angled splint. There was severe pain in the wound for two days; it closed after profuse suppuration at the end of a month, at which time the nerve-sutures, with one exception, remained fixed. The sensory and motor paralysis continued, but electric stimulus aroused slight movements in the muscles. Six weeks after the operation the sutures and splint were removed. Six months after the operation, some movement was restored to the hand. Eighteen months after the resection, the condition of the limb was as follows. The forearm was much stronger; the skin was thicker, warmer, and not so shining; the nails were less thick and crumpled. The activity of the flexors and pronators of the hand had become almost entirely re-established, while the movements of the ball of the thumb and that of the little finger were still imperfectly performed. Feeling had returned, with the exception of occasional imperfect localization. Irritation of the nerves above the sutures aroused energetic

contraction; below the sutures, none; that is to say, conduction had returned, but not irritability of the peripheral end. The patient was able to perform his work once more perfectly well.

Braun also alludes to another case of Langenbeck's, where resection was performed after two years. It is the late performance of the operation which gives these cases interest; cases of resection of recently-separated nerves are not rare.—*New Orleans Med. and Surg. Journal.*

ABORTIVE TREATMENT OF BUBO.

BY SURGEON J. K. CONWAY, M.D., R.N.

As I have not seen any record lately in the medical journals of the successful treatment of bubo on the abortive system, I beg to give some experience of it gained during service at the Cape of Good Hope Royal Naval Hospital under Fleet-Surgeon Breen's direction during 1874-5-6.

The fleet-surgeon adopted M. Malplaquet's discutient plan, and put it into practice as follows :—The cuticle over the swelling having been removed by blistering fluid to the extent of a shilling piece, a scrap of lint steeped in a saturated solution of perchloride of mercury was applied to the raw surface, with a linseed poultice over all, and left for about twenty-four hours. When again seen a greyish eschar was found to have formed, and we had occasion to notice that the firmer was this eschar the more certain and speedy was the good result. After two or three days' poulticing a clean, shallow, granulating depression only remained for treatment, and readily healed by simple means, the swelling itself having meanwhile quite disappeared.

Twelve cases of inguinal bubo, ten of which were accompanied by soft sores on the penis, were thus treated, with the best results in all. Such being the case I am encouraged to bring this mode to the prominent notice of the profession through the valuable columns of *The Lancet.* I must add that except sharp pain of short duration, immediately following the application of the mercurial solution, no inconvenience was complained of.—*London Lancet.*

TREATMENT OF RINGWORM BY GOA POWDER.—In several articles recently published in the *British Medical Journal*, the virtues of this remedy have been discussed. Having formerly been a resident in the East for nearly two years, and having treated a large number of cases of the so-called "Doby's ringworm," or tinea circinatus, both among natives and Europeans, I may add my mite to the inquiry. This disease, which is so common in India and China that almost every individual becomes at some period affected with it, is successfully treated with several external applications, such as tincture of iodine, solutions of mercury, etc. Undoubtedly, the most certain and rapid is that of Goa powder. I have found, in acute cases, that one application was usually followed by recovery. In chronic cases, two or three may have been necessary to thoroughly eradicate the disease. In no single instance do I remember the employment of this drug to have failed in effecting the object desired.—*Dr. A. H. Bennett, in British Medical Journal.*

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At the annual meeting of the Council of this Institution, on July 12th, Mr. John Birkett, consulting-surgeon to Guy's Hospital, was elected President; and Mr. John Simon, C.B., F.R.S., surgeon to St. Thomas's Hospital, and Mr. Luther Holden, surgeon to St. Bartholomew's Hospital, were elected Vice-Presidents of the College for the ensuing year. Mr. T. Spencer Wells was elected Professor of Surgery and Pathology; Mr. W. H. Flower, F.R.S., and Mr. W. K. Parker, F.R.S., were re-elected Hunterian Professors of Comparative Anatomy and Physiology; Mr. W. J. Erasmus Wilson, F.R.S., was elected Professor of Dermatology; Mr. B. T. Lowne was elected Lecturer on Anatomy and Physiology.

DEATH FROM TRANSFUSION.—A man died in Liverpool, England, lately, from having had his blood transfused into another man who was ill. He went on all well for a day or two afterwards. He then became ill, got gradually weaker, and died from erysipelas. The deceased was a man of full habit, and was occasionally given to drinking.—*Med. and Surg. Reporter.*

Midwifery.

Treatment of Placenta Prævia.—Dr. R. Davis, of Wilkesbarre, in his address upon Obstetrics before the Medical Society of the State of Pennsylvania, in May last, advocates the following plan of treatment of placenta prævia, which is a material modification of Barnes's operation. As soon as the os uteri will admit two or three fingers, pass the hand into the vagina. Ascertain by sweeping the finger round between the placenta and uterus (without disturbing their connections) on what side the separation of the placenta is most extensive. That will always be the side of the least extensive attachments. Introduce two or three fingers, upon that side, up between the placenta and the uterus until the border of the placenta, where the membranes begin, is reached, severing the attachments as you go, if any remain; then hook the fingers over the border and draw the placenta forcibly down and pack it closely to the other side. The membranes will, of course, come down with it, and will protrude through the open mouth of the womb. Rupture the membranes at once, and empty the womb of its waters as thoroughly as possible. The head, if it presents, and if pains are active, will now engage in the os, and will crowd the placenta to the side of the cervix, on one side, and will block up the open mouths of the vessels upon the recent seat of the placenta on the other, *and the hæmorrhage will cease.* In every case in which I have resorted to this procedure such has been the happy result, and I have been left free either to allwo the labour to end naturally or to end it myself by the forceps.—*Amer. Jour. of the Med. Sciences.*

On the Treatment of Uterine Inversion by the Elastic Ligature.—In a case of uterine inversion in which he had tried reduction ineffectually by all the means usually employed, M. Arles drew out the inverted uterus and surrounded it by a moderately tight india-rubber tube. The results were very simple, and the tumour came away in a fortnight. M. Arles affirmed that the elastic ligature is superior to all the methods hitherto employed.—*London Medical Record.*

Topical Applications for the Uterus.—Dr. Robert Battey highly recommends *iodized phenol*, of which the following is the formula: iodine, one-half ounce; cryst carbolic acid, one ounce. Mix by gentle heat, and add cryst carbolic acid, one ounce; water, two drachms. Mix. This can be used in full strength or in various degrees of dilution with glycerine—it combines the local anæsthetic effects of the acid with the alterative effects of the iodine. The degree of dilution depends on the character of the case, and varies from two-thirds to one-fourth. Chronic cervical affections of the cervical canal and endometrium, uterine hypertrophy, and subinvolution, are particularly suited for it application. It can be applied by painting with a brush, or with the probe armed with cotton wool.

Dr. J. P. Thomas proposes the following formula: iodine, half-ounce; chloral hydrate, one ounce; liquified carbolic acid crystals, one ounce. Rub the first two together in a mortar, then add the latter, rubbing until a dark homogeneous liquid is formed. Dr. T. says, "In chronic hypertrophy and induration of the os and cervix, I have never found any application equal to it. He seldom dilutes the formula, but if necessary this may be done with glycerine.—*Practitioner.*

The Hypodermic Use of the Tincture Veratrum Viride in Puerperal Eclampsia.—It is with great diffidence that I present this communication for publication. Nothing but a sense of duty that I owe to the profession actuates me. Hoping that the importance of the subject will command attention, I more confidently assume the task. In the treatment of a case of puerperal eclampsia, I extemporaneously administered the tincture of veratrum viride by hypodermy, succeeding ultimately in checking the spasms. I have been led to try the virtue of the remedy in several cases since; meeting with happy results, I feel warranted in claiming for it a new interest to the profession. The amount used should be two to five minims, proportionate to the strength and frequency of the pulse. My father has long been in the habit of using veratrum in puerperal and hysterical convulsions, but I think I am the first to use it in the way described in this paper.—*By J. W. Griggs, M.D., in Atlanta Medical and Surgical Journal.*

Original Communications.

FOUR THOUSAND SEVEN HUNDRED AND FOUR CASES OF MIDWIFERY.

ATTENDED BY JAMES ROSS, M.D., TORONTO.
1852–1877.

ANALYZED BY R. ZIMMERMAN, M.D., TORONTO.

Age of the Mother.

The age of the mother was noted in 3,839 cases.

In	1	it was	15½ years.	In	90	it was	33 years.
	6	"	16 "		64	"	34 "
	7	"	17 "		136	"	35 "
	45	"	18 "		140	"	36 "
	39	"	19 "		72	"	37 "
	256	"	20 "		112	"	38 "
	160	"	21 "		29	"	39 "
	261	"	22 "		114	"	40 "
	175	"	23 "		18	"	41 "
	280	"	24 "		30	"	42 "
	165	"	25 "		13	"	43 "
	305	"	26 "		9	"	44 "
	176	"	27 "		13	"	45 "
	324	"	28 "		9	"	46 "
	65	"	29 "		2	"	47 "
	445	"	30 "		2	"	48 "
	64	"	31 "		2	"	49 "
	205	"	32 "		1	"	50 "

Sex of Child.

In 4,635 cases in which the sex of the child was noted there were,

Males ..... 2,443 | Females 2,192

Mortality of Mothers.

The number of mothers lost was 22, or 1 in $213\frac{9}{11}$. Of these

4 died from puerperal fever—death occurring on the fifth, sixth, seventh, and twenty-eighth days respectively.
3 died from puerperal peritonitis on the sixth, sixth, and tenth days.
1 died from scarlatina maligna and rheumatism on the twelfth day, and
2 " " on the fifteenth and twentieth days.
1 died from puerperal phlebitis on the fifteenth day.
1 " " fever and pleuropneumonia on the eighth day.
1 " " mania on the seventh day.
2 " typhoid fever on the twenty-fourth and twenty-ninth days.
1 " phthisis on the eleventh day.
1 " " and heart-disease with flooding, on the thirteenth day.
1 " placentia prævia.
1 " dysentery (acquired some time previous to labour) on the tenth day.
1 " suffocation and collapse eight hours after labour, (she had had pleuropneumonia several days.
1 " had had gastritis and pleuropneumonia for several weeks—labour induced near full term, death occurring seven days after.

Mortality of Children.

Two hundred and eighty-seven children were lost, or 1 in $16\frac{1}{2}$ (nearly). Of these there were,

Full term..... 193
Not full term 94

the latter ranging from the fifth to the eighth month.

In 76 death had occurred from a few days to several weeks before labour.
4 death was due to craniotomy.
1 " " morbus cæruleus.
3 " " hydrocephalus.
13 " " deformity (acephalous, spina bifida, &c.)
12 " " placenta prævia.
10 " " prolapsus funis.
35 cases where the child was born dead the forceps were used.
17 " version was performed.
4 " the pelvis was contracted.
17 " the shoulder presented.
22 " the foot "
31 " the breech "
25 " there was accidental hæmorrhage.

Presentations.

In 3,753 cases the head presented.
111 " breech "
48 " foot "
28 " arm or shoulder presented.
22 " face presented.
5 " brow "

Position in Head Presentations (when noted).

2,840 were occiput left anterior.
346 " right "
241 " " posterior.
119 " left "

One hundred and thirty-four head presentations, with occiput posterior, were converted by rotation with the finger into occiput anterior.

Breech Presentations.

One hundred and eleven, or 1 in $42\frac{42}{111}$. Of these 79 children were saved and 32 lost—1 in $31\frac{15}{32}$.

9 were twin cases.
5 had been dead some days.
6 died from accidental hæmorrhage.
In 1 the pelvis was contracted.

Foot Presentations.

Forty-eight—1 in 98. Of these 27 children were saved and 21 lost.

1 died from accidental hæmorrhage.
2 " placenta prævia.
2 " deformity.
In 1 the pelvis was deformed.
5 were dead some days before birth.

Arm and Shoulder Presentations.

Twenty-eight—1 in 168. Of these 10 children were saved and 18 lost.

In 1 craniotomy was performed.
2 there was placenta prævia.

One case was dead before labour, and one was spontaneously converted into a breech.

Face Presentations.

Twenty-two. Of these 16 children were saved and 6 lost.

In 1 case version was performed.
" forceps were used.

Six cases were converted by the hand into occiput right or left anterior.

Brow Presentations.

Five. Of these 4 children were saved and 1 lost.

Two cases were converted into an occipital and 1 into a face presentation.

Unclassified Presentations.

In 1 the back and side presented.
2 the lumbar region "
1 the thoracic " "
2 the feet and head "
2 the foot and arm "
2 " head, arm, and hand presented.
2 " " breech presented.
1 the knee presented.

Twin Cases.

Seventy-seven—1 in $61\frac{1}{11}$. Children saved, 136; children lost, 18—2 of the latter being premature, and 2 dying before birth.

In 31 cases both children were males.
23 " " " females.
23 " one child was male the other female.

Presentations in Twin Cases.

In 38 both were head.
10 one was head the other feet.
2 both were breech.
13 one was breech the other head.
1 " head " brow.
3 " " " shoulder.
1 " feet " arm.
1 " head " arm and face.
1 both were feet.
1 one was breech the other foot.

In one case the placenta followed each child.

Version.

This was performed in 38 cases. In 15 the child was saved; in 23, lost.

Accidental Hæmorrhage.

This occurred in 30 cases. In 7 the child was saved; in 23, lost.

Puerperal Convulsions,

This occurred in 5 cases, with favourable results to mother and child in all.

Prolapsus Funis.

This occurred in 14 cases. In 4 the child was saved; in 10 the child was lost.

Forceps Cases.

One hundred and seventy-three—1 in $27\frac{33}{173}$. The forceps were used in 173 cases with favourable result to mother in all.

There were 91 multiparæ, in which 73 children were saved and 18 lost. There were 82 primiparæ, of which 60 children were saved and 22 lost.

In 3 cases the child had been dead some days.
9 " the pelvis was contracted.
2 " the children were hydrocephalic.
2 " craniotomy was performed.
3 " the funis prolapsed.
3 " death occurred by constriction of the neck by the cord.

Placenta Prævia.

This occurred 13 times.

Mothers saved, 12; lost, 1.
Children " 2; " 11.

Ruptured Perineum.

This occurred 18 times—17 partial and 1 complete. In these 17 cases no operative treatment was necessary. In the 18th, the child was born before the doctor's arrival, and he did not see the patient subsequently.

M. Lepine administers vapour-baths an hour before the probable commencement of the shivering fit in intermitting fevers, while the patient is still feeling quite well, and finds that they keep off the fit, although the urine, by its special modifications, indicates that the fever has followed its course. The baths he recommends as an aid to the treatment by quinine.

Sir Francis Hicks, Treasurer of St. Thomas' Hospital, died somewhat suddenly at Margate, on September 1st. It is reported that the Lord Mayor, Sir Thomas White, will be his successor in the office of Treasurer to St. Thomas Hospital.

VERY LARGE CYSTINE VESICAL CALCULUS—LITHOTRITY—CURED.

BY R. ZIMMERMAN, M.D., TORONTO.

J. M——, brass-finisher, æt. 35, a native of Scotland. Family history good; no hereditary disease. Had always been healthy up to the early part of 1876, when he began to be troubled with pain at the end of micturition, frequent micturition, with pain occasionally in the testicles and retraction. Had pains in the course of the ureters. About this time, after severe pains in the region of the ureters, he passed two calculi, described as being oval, brownish, and about the size of cherry-stones—both passed together. These were not examined, as, unfortunately, they were lost.

In August, 1876, he applied to me for treatment, complaining then of symptoms of vesical irritation. On examining his urine, microscopically, I found plates of cystine, otherwise the secretion appeared healthy. In the fall of 1876 the urine became purulent, and the symptoms increased in severity. Early in 1877 blood appeared in the urine; micturition became exceedingly frequent and painful, with occasional stoppage of the flow. Urine purulent. After the first prescription in August, 1876, I did not see him professionally until the latter part of April, 1877, when he was obliged to give up work on account of the severity of the symptoms. On sounding him, in consultation with Dr. J. E. Graham, a calculus was readily detected, and although the urine was slightly albuminous it was decided to crush.

The first operation was on May 7th—Drs. I. H. Cameron and Graham being present. The sittings were repeated eight or nine times, at intervals of from four to seven days. The stone offered considerable resistance to crushing. The bladder was not washed out. The patient stood the operations well—a fact no doubt in very great measure due to his exceedingly temperate habits. On one occasion he had rigors and vomiting, readily controlled by twenty grains of quinine with a quarter grain of morphia. He was, owing to nervous ness, extremely difficult to anæsthetize, it sometimes taking as long as an hour and a quarter to bring him under the influence of chloroform. Ether acted no better. The only drawback to the satisfactory progress of the case was the impaction of angular fragments in the scrotal portion of the urethra. This occurred several times, and on all but one occasion were removed—sometimes under chloroform—by means of the urethral forceps. On one occasion I had to slit up the meatus; on another, I had to excise a fragment just anterior to the scrotum. This left a fistula, which has now (September 24th) completely closed—the treatment adopted being the occasional use of nitrate of silver point. The patient has recovered completely, my attendance having ceased on July 9th, when he went to the country for a few weeks. To use his own words, he now "feels like a new man."

From the amount of sand and fragments collected by me, and given to Prof. Croft and others, I am satisfied that the stone weighed at least 800 grains, and probably more. When first seized with the lithotrite it registered over one inch and a half. Drs. J. E. Graham and I. H. Cameron assisted me throughout the case. The only medicine given was quinine and tincture of iron as a tonic, with infusion of triticum repens, in ʒi doses, thrice daily. This latter appeared to have a good effect on the bladder.

NOTES ON CYSTINE.

BY H. H. CROFT, D.C.L., F.L.S.

It is not often that an opportunity occurs of examining the substance cystine, which rarely occurs in the form of a vesical calculus. In the catalogue of calculi in the Museum of the College of Surgeons, (London, 1842,) only three or four are mentioned as occurring in the human subject. The calculus has been found in the ox and dog, and cystine has been observed in small quantities, but very rarely, in other calculi. A curious fact is that the disease seems to be hereditary, calculi of the same kind having been found in several of one family. Another point of some interest is that the calculus is generally solitary (the writer knows of no case in which several calculi have been found).

The size of the cystine or cystic oxide cal-

culus varies. The largest specimen is that in the collection of the London University, weighing 850 grains, examined by Bence Jones; others of from 700 to 800 grains have been reported and described. The calculus extracted by lithotrity in the recent case in the practice of Dr. Zimmerman, must have been equal, if not greater, in weight than most of the foregoing. Unfortunately the writer, from absence, has lost some notes as to weights of the calculus; but the whole amount was about 520 grains as received by him. Considering that the broken up calculus was passed with the urine, that much must thus have been lost, and that many specimens were given to other parties, and from the apparent size of the calculus before extraction, it may safely be concluded that this was one of the largest cystine calculi which have been met with.

The composition of cystine was once considered to be carbon, hydrogen, nitrogen, and oxygen. It was found that the loss in the organic analysis, which had been calculated as oxygen was really due in part to sulphur, the equivalent of sulphur being exactly double that of oxygen. Hence the formula of cystine, which seems to be a substance *sui generis*, may be $C^3H^7NO^3S$, as the lowest expression; it was formerly given as $C^3H^7NO^4$.

Whether this is the true formula of the body is a question; it combines with acids forming definite crystallisable compounds, which the writer hopes to examine, and thus determine the true equivalent of cystine.

DETECTION OF CYSTINE.

The calculus burns away, leaving only a very small residue. The gases evolved are pungent and quite different from those obtained from ordinary calculi.

The odour of the urine of patients, suffering from this calculus, is very disgusting, resembling that of putrid urine.

The test for cystine, as given by Liebig, is to add caustic potassa to a solution of lead acetate until the precipitated lead oxide is dissolved; then to add the solution of the cystine in potash or ammonia, and boil. A brown or black colour indicates its presence.

The writer has found that the solution of the calculus in ammonia may be used at once with the addition of a few drops of lead acetate. On boiling, the brown or black colour is almost immediately produced.

On heating cystine with caustic potassa, the substance is decomposed, potassium sulphide is formed, and may be detected by salt of lead or by sodium nitroprusside, or other tests for sulphur. If ammonia has been used, these tests fail, on account of the volatility of the ammonium sulphide which is formed.

If the experiments be made with caustic potassa, or ammonia, without boiling, no result will be obtained, showing that the sulphur forms an integral part of the cystine, and does not exist as an ordinary sulphide.

When a fragment of the calculus is heated on platinum foil, there is produced a transient blue colour, disappearing on further heating, due probably to formation of platinum sulphide.

The analyses of this rare substance are as follows:—

	Trout.		Taylor.		Francis.
C	30·49	—	30·79	—	29·61.
H	5·10	—	5·78	—	6·03.
N	11·85	—	10·99	—	11·48.
O	52·56	—	28·86	—	28·87.
S	..	—	23·58	—	24·01.

The calculus always contains some mineral matter: calcium phosphate, magnesian double phosphate, and others, seldom amounting to more than three or four per cent. The specimen under examination gave 91·5 of cystine, soluble in dilute ammonia and giving fine hexagonal tables on evaporation.

The substance when heated is said to give off vapours containing hydrocyanic acid; the pungent odour evolved seems to the writer to resemble cyanic rather than hydrocyanic acid. A further examination of this very interesting calculus, for which the writer is indebted to Dr. Zimmerman, will form the subject of a future paper.

Dr. Janeway, at the New York Pathological Society, referred to three cases in which an exploring needle had been broken off in the pleural cavity. No unpleasant symptoms resulted.

MODERN OTOLOGY.

BY R. A. REEVE, B.A., M.D.

Lecturer on Diseases of the Eye and Ear in the Toronto School of Medicine, Ophthalmic and Aural Surgeon to Toronto General Hospital, &c.

(Continued from page 317.)

The modern treatment of chronic purulent otitis is in marked contrast with that of former days. There is no case that cannot now be mitigated, while chronic and inveterate cases, that were once thought to be hopeless and were neglected, now prove quite amenable to treatment. There are yet too many instances in which treatment falls short of effecting the sound healing of the parts involved, but failure can generally be fairly charged to scrofulosis. Not infrequently months, and sometimes years, elapse before a firm cicatricial membrane lines the tympanum. The hearing often greatly improves *pari passu* under treatment, but, unfortunately, arrest of the morbid process does not imply restoration of audition. This fact is of special import in the case of young subjects, for deaf-muteism is by no means always congenital, but often results from neglected ear-disease after birth. A prejudice exists against interference with 'otorrhœa,' lest the disease be transferred to the brain, &c., &c.; and upon the profession rests the onus of showing on proper occasions that this opinion is false in fact and likely to prove vicious in its effects: an incessant purulent discharge means a large quantity of blood worse than wasted, not to speak of secondary mischief that may occur. Thousands of cases of chronic otitis are annually arrested without any reaction save a healthful one.

Cleanliness is a prime requisite in the treatment of these cases. The frequent removal of the pus by gentle syringing or the use of the douche will at least prevent the irritation of the tympanum that is kept up by the decomposition of the retained secretions, and reduce the danger of septicæmia, and also the offensive odour so characteristic of suppurating ears. One of the secrets of success in treatment is the removal of all secretions so that the medicine introduced may act directly on the diseased surface. A bleb of muco-pus or tough mucus often remains in the middle ear after syringing, and by forming a coagulum with the astringent, or caustic, nullifies the effect of the instillation. This is one cause of the general failure of 'ear-drops' prescribed for use by the patient. It is often necessary to use a miniature probang, made by twisting a little fine cotton wool into a cylinder on the roughened end of a probe (or crotchet needle), by gently rotating which against the parts any residual discharge may be removed. And this end is also promoted if Valsalva's or Politzer's method be practised.

Polypi should in all cases be removed without delay, by the "snare" if possible; and when forceps are used torsion and not traction should be employed. Polypoid granulations should be cauterized under illumination by the mirror with a few crystals of acid chromic on the end of a probe, or by acid-nitric, chloracetic, tinct. ferri perchlor., &c.; or by a small bead of argenti nit. fused on to the end of a bent probe or wire, or by instillation of a few drops of strong solution of argent. nit.: *e.g.*, 60 to 480 gr. ad. oz. i., the ear being at once flooded with a warm solution of sodium chloride to neutralize excess and subdue pain. In the simple granular condition of the tympanum astringent drops, as *e.g.*, zinci sulph., or cupri sulph. gr. ii. to x ad. oz. i., with small percentage of acid, carbolic or sol. zinci sulpho-carbol. gr. v. to xx. ad oz. i. instilled two or three times a day and allowed to remain in the ear from three to five minutes, Valsalva's method being done, sometimes suffice; and they are at least useful adjuncts where solutions argenti. nit. gr. 40 to 80 ad. oz. i. may be required two or three times a week.

This expedient of attempting a forcible expiration with mouth and nose closed (Valsalva), and also of swallowing, while the medicated fluid is in the ear, causes the solution to pass down the Eustachian tube, and has thus the additional merit of relieving that succulent and secretive condition of the tubal mucous membrane, which often co-exists with chronic otitis and, as an extension of naso-pharyngitis, is one cause of its chronicity. It is also a simpler and safer plan than that of forcing solutions through the Eustachian tube into the pharynx *via* the middle ear, by means of a syringe fitting tightly into the external meatus. The simplest way of effecting prolonged contact of astringents, anti-

septics, &c., is that of gently placing at the inner end of the meatus or in the middle ear a little ball of medicated cotton wool, which has been prepared by soaking in sol. aluminis or zinci sulpho-carbol., acid. carbol. boracic, or salicylic, &c., and drying. In some cases the pellet, which should be replaced several times a week, also improves the hearing power by the slight pressure it exerts on the ossicles, taking the place of the artificial drum-head of rubber. In most instances constitutional treatment is required, and in many instances is indispensable, the indications being such as have to be met in similar systemic and local conditions existing in other affections, and as in cases of pharyngeal and aural catarrh, especially in children, much attention should also be paid to hygiene. The protracted nature of the morbid process renders necessary much patience and perseverance; and since the prognosis in regard to the hearing is often unfavourable, it becomes an imperative duty, in order to enforce appropriate treatment, to discreetly point out the evils of neglect. Bearing in mind the danger of mastoid disease, and of secondary pyæmia or cerebral abscess, a purulent otitis is certainly a more serious condition than many others which justly receive careful treatment; and there can be no doubt that an "otorrhœa" should have at least the degree of attention which has long since been given to a chronic conjunctivitis, for example.

Diseases of the ear always assume additional gravity when the mastoid becomes involved. Acute congestion or periostitis not unfrequently develop by continuity in acute aural and purulent catarrh; and if hot fomentations, leeching and blistering do not reduce the pain, tenderness and swelling of the process in twenty-four or thirty-six hours, a long cut should be made down to the bone, the local depletion relieving the tension or cutting short the inflammation, preventing exfoliation, &c. Undue prominence of the auricle not due to furuncle of the meatus is a pretty sure indication for a deep incision. It is, however, the chronic purulent otitis that most frequently causes serious mastoid disease, for, apart from the periostitis of the cells and process which may occur, caries and necrosis may also develop. The latter often present symptoms similar to periostitis, and in both there is at times a coincident arrest or lessening of the discharge from the middle ear; but sometimes deep-seated pain, relieved it may be, but not removed, by leeching, &c., and tenderness on firm pressure upon the process, are the only indications. An incision should be made down to the bone as before, an inch or more long and about a half-inch behind and in a line with the insertion of the auricle. If a sinus be detected it should be made larger by a drill, and if there be no sinus, but the bone be soft and roughened, or there is a fair assumption of caries and suppuration in the cells, an opening should be made into the latter with a small drill or trephine. The instrument should pierce the bone nearly a half-inch behind and on a level with the mouth of the meatus, and be worked inwards, forwards, and slightly upwards. The cells will generally be entered at from one-sixth to one-fourth of an inch, the bony septa may be broken down if necessary, and then a tent should be inserted, hot fomentations or poultices being applied for a time, to be followed by dressings, lotions, &c., p.r.n. If there be suppuration the cells should be syringed daily with a weak carbolised astringent wash, and the tent should be continued till the sinus heals from the bottom. This operation has now a recognised place in aural surgery as a safe and valuable preventive of a fatal extension of the mastoid complication. Out of sixty-seven cases of mastoid disease collected by Dr. A. H. Buck, thirty were operated on, of whom twenty-two recovered; thirty-six ended fatally, and only three had a spontaneous recovery.

Diseases of the labyrinth are less understood and less amenable to treatment than those of the external and middle ear, and are fortunately relatively infrequent. So-called "nervous" deafness was formerly a very common affection, but advances in diagnosis and pathology have reduced the actual number of such cases to a small percentage. It is now well known that a marked deafness may be due to obstruction of the meatus, as by cerumen, or to disease of the tympanum; though the latter is recognised as a cause of morbid changes in the internal ear. Irritation of the auditory nerve producing tinnitus is a very common symptom of aural catarrh. A

thickened and unyielding state of the membrane of the round and the oval window, or excessive pressure on the labyrinth fluid through the me dium of the ossicles from undue concavity of the drum-head and secondary contraction of the tensor tympani, which often occur in the course of a chronic aural catarrh, will explain the confirmed tinnitus and secondary changes in the labyrinth. The early and systematic treatment of middle ear trouble, and when confirmed, the attempt to improve the subjective conditions by operative measures, are features of modern treatment indicative of its progressive character, and tend to materially lessen disease of the internal ear.

The protracted retraction of the membrana tympani frequently causes secondary and permanent contraction of the tensor tympani muscle, thus increasing the pressure upon, and irritation of, the labyrinth; and hence tenotomy of the tensor tympani has been introduced. The tendon is cut by means of a long-handled cutting needle or angular hook, which is made to pierce the drum-head just in front of, or sometimes behind, the manubrium mallei; but a fair testing of this delicate operation in different hands has been followed by such uncertain results as to indicate that this procedure should only be at tempted as a last resort. Artificial perforation of the drum-head by linear or crucial incisions, &c., or by the insertion of an eyelet, has also been employed with a somewhat similar intent, but with indifferent results. Early puncture or incision of the drum-head in purulent otitis media has been referred to, and is important as a prophylactic. In some cases also adhesions of the drum membrane to the promontory have been divided with some subjective benefit. Paracentesis of the membrana secundaria to relieve possible intra-labyrinthine tension, as hinted at by Knapp, may yet be attempted.

A high degree of deafness, with tinnitus, and the fact that closure of the meatus does not intensify the sound of the tuning-fork but rather lessens it, would indicate greater or less implication of the labyrinth, in the course of an aural catarrh, or from blood poisoning as in syphilis, fevers, erysipelas, or from probable anæmia in child-birth, and would suggest an infavourable prognosis as to the restoration of hearing. But pure nerve deafness is generally marked by more or less sudden and total loss of hearing, with or without tinnitus; and by other symptoms, such as vertigo, nausea and vomiting, and loss of equilibrium, which may legitimately be referred on physiological grounds to coarse changes in the *semi-circular* canals. The recovery in a short time of wonted health, but with abiding deafness, in many cases having this group of symptoms, points pretty conclusively to apoplexy or serous exudation within the labyrinth; while from analogy at least, as well as the results of some post-mortems, it is fairly held that purulent inflammation of the membranous labyrinth is, as a rule, the pathological condition in the aural complication of simple and cerebro-spinal meningitis, puerperal fever and other pyæmic diseases. The so-called Meniere's disease is not limited, as he thought, to the *semi-circular* canals, for the coincident loss of hearing, with occasional deafness for certain groups of musical sounds (Knapp), indicates that the cochlea also is involved; and it may be regarded as essentially a primary or secondary hemorrhagic or serous inflammation of the whole labyrinth. The assertion of Voltolini that very many cases of inflammation of the internal ear have been mistaken for meningitis, more especially in young subjects, and that there is no such affection as cerebro-spinal meningitis causing deafness, has been fully disproved; but the investigation of such cases, and the observation of Hughlings Jackson that deafness does not result from coarse cerebral changes unless the auditory nerve is actually involved or pressed on (a rare event), coupled with his assumption that epileptiform seizures possibly result from thrombosis in cases of purulent otitis media, and his statement that in some cases of purulent otitis in children there is persistent hemiplegia—an important case of Roosa's being adduced—and that in all cases of hemiplegia in children the ear should be examined; and the fact that acute lesion of the labyrinth sometimes occurs in eclampsia infantum, and also that head symptoms, due solely to ear disease, have been so grave as to wholly distract attention from the real mischief, are sufficient evidence, apart from considerations already adduced, that the ear and its disease merit the study of every practitioner. Then, too, the fact, which is becoming increasingly evident, that more than fifty per cent. of the cases of deafmuteism are the results of aural disease after birth, and that the primary morbid condition (aural catarrh generally) is in many instances to a certain extent remediable, deserves attention in this connection. Unfortunately, disease of the labyrinth is but slightly amenable to treatment. Any middle ear trouble should be treated *sec. art.;* and in the more recent cases where the deafness may not be very profound, local depletion, counter-irritation, mercury, potassium iodide and bromide, &c., &c., will occasionally be found of some service. Electricity has been fairly tried in skilful hands, and proved to be practically useless.

Translations.

DOUBLE PSOITIS FROM STRAIN; PYŒMIA.

BY M. ALFRED BULTEAU.

(Read before the Clinical Society of Paris.)

A man, aged 41, by occupation a mason, entered the Hospital Beaujon on the 5th of March, 1877, under M. Guyot. He had been in the surgical ward since February 27th, and was treated for lumbago. On the 20th February, whilst lifting a barrow of mortar, the patient felt something crack in the region of the kidney, soon followed by very severe pain. He was obliged to leave his work immediately, and was unable to resume it the next day. Since that time he kept to his room; the pains in the kidneys were so violent that he could not sleep. *State on admission:* Strong, vigorous, of good constitution, he appeared to enjoy excellent health. He complains of violent pains in the kidneys. A slight swelling of a yellowish tint is noticed in the left lumbar region, limited to the sacro-lumbar mass on the costo-iliac space. It is painful; the pain being increased by pressure all along the lumbar region, only slightly passing the median line, and occupying the whole of the œdematous part on the left side. The patient can scarcely stand; he walks with difficulty, and slightly bent; all his motions are executed slowly and with caution. M. Prof. Lefort did not hesitate to diagnose: lumbago following a strain. Four days after his admission high fever set in, and at the same time, active delirium; the facies assumes the typhoid aspect, the abdomen swells, and on auscultation of the chest, a general bronchitis is diagnosed. The bladder becomes paralyzed, and the catheter has to be used for two days; incontinence of urine soon sets in. The typhoid symptoms become marked, and the patient is transferred to the medical side, with the diagnosis of continued fever. We saw the patient first on March 6th. His countenance is suffused, his typhoid aspect marked. The tongue is dry and fissured, the abdomen swollen and painful, with gurgling in the right iliac fossa. The stools are loose, but the rose spots are absolutely wanting. Both lungs are greatly engorged. The whole lumbar region, especially on the right side, is œdematous, and very painful on pressure. The patient has difficulty in moving his lower extremities. There is no marked paralysis, but merely paresis. The pain in the kidneys, increased by the slightest motion, seems to account for the difficulty in moving. M. Guyot accepts with all reserve the diagnosis of perinephritic inflammation. The following days aggravate the general condition. The adynamia and stupor increase. The lumbar œdema persists without change, but the tenderness has disappeared. Urine slightly albuminous. The paralysis increases, but remains incomplete; but there is absolute incontinence of urine and feces. Temperature from 39° to 40°. M. Guyot returns to his original diagnosis of typhoid fever of spinal form. The 11th of March both parotids are swollen, also the left epididymis. Respiration anxious and hastened at times, the dyspnœa not being accounted for by the slight bronchitis. On the thirteenth the parotids are incised, the pus is infiltrated, and flows but slowly. On the 16th the left leg is œdematous, and there is effusion into the left knee joint. The lower extremities are almost completely paralyzed. The patient died the next day. *Autopsy:* Lungs, liver and spleen healthy. The walls of the heart soft. Valves healthy. Peyer's patches normal, mesenteric glands not enlarged. Kidneys engorged. The right almost double its normal size—capsules thickened and easily separated. On section the kidneys appear congested, with a large number of yellowish miliary metastatic abscesses in the cortical portion. The parotids are suppurating, as is also the left epididymis. Rest of the urinary organs healthy. A slight collection of pus in the second intercostal space, hip-joints and left knee. The spinal canal in the lumbar region is full of yellowish pus, in which the cauda equina is bathed. The dura-mater is incised; no pus is found between it and the cord. The cord is intact, the pia-mater but slightly injected, a small greyish elliptical spot on the inner surface of the dura-mater indicating a commencing spinal meningitis. The pus contained in the spinal canal flows by the intervertebral foramina into the sheath of the psoas. On incising this muscle, on each side a large

collection of pus is found extending from the sides of the spine to Scarpa's space. The muscle is only destroyed in its upper part; there, in fact, it is partly separated from its attachments to the vertebral column, the fibres are torn, macerated in the pus. The nerves are more or less altered in the abscess. The pus in the spinal canal has reached to the sacral canal, passed into the concavity of the sacrum by the anterior sacral foramina, and forms a small abscess under the gluteus maximus in the course of the great sciatic nerve. No disease of the bone in any part of the spinal column is found.

Remarks.—At first the origin of the trouble and the starting point of the various accidents above mentioned were difficult to fix upon, but upon analyzing the symptoms, and taking into consideration the mode of onset, a reasonable conclusion as to the nature of the disease could be arrived at. Whilst making a violent effort to lift a heavy weight the upper part of both psoas muscles was torn. Inflammation and suppuration ensued immediately, in consequence of the rupture of these muscles. We know, besides, how, contrary to what happens as regards other muscles of the body, the psoas and iliacus muscles readily suppurate. The pus, originally contained in the sheath of the psoas, escaped into the spinal canal, compressed the cauda equina, and gave rise to partial paraplegia. Undoubted symptoms of pyœmia set in, and it appears as if the psoitis had taken that dread form of infectious myositis to which M. Haynem, and later M. Nicaise, have drawn attention. Inflammation of the psoas following a violent effort has been noticed several times. Deraine cites a similar case with fatal result. Denonvilliers cites the case of a young man who, under his treatment, recovered from psoitis following a strain.—*La France Médicale.*

From *Revista de Medicina y Cirurgia Practicas.*

Treatment of Hemicrania.

Dr. Camprubi's method of treating neuralgias, which has been attended with excellent results, consists in causing the patient to inspire, for the space of from five to twenty minutes, large quantities of the vapour given off in the ebullition of acetic acid; it is well, besides, to place within the vessel a calcareous stone, which causes the acid to effervesce.

The Physiological and Therapeutical Effects of Phosphate of Lime.

By Dr. Jules Regnard.

Phosphate of lime is a nutritious medicine, analagous in its action in the economy to chloride of sodium. Like the latter, when it is administered in a soluble form, it is excreted in the urine, and hence it has been inferred that it is not assimilated. But, like all medicines, it is found in the urine after it has exerted its dynamic and biologic action in the economy; and, just in the same way as nourishment, it can still be a product of disassimilation after the reconstruction of the tissues, brought about by its administration. Among the physiological effects of phosphate of lime, some are well determined and can be turned to therapeutical application, but many appear to me to be hypothetical. It is not the same with the therapeutic results. These attract the notice of the practical physician, and it is these especially by which he ought to be guided.

Three years ago I first used sulphate of lime in a soluble form. I began in phthisical cases in different stages, and in nearly all I observed a remarkabla amelioration. Increase of appetite and strength, and diminution of cough, followed close on the administration of the medicine. Some of these patients, it is true, are dead, others lingered, and, after a suspension more or less long, the phosphate of lime again gave them a favourable impetus. In others, again, the amelioration has persisted, and without wishing to call them cured, they certainly owe to this treatment a renewal of health that others have not received. Since then I have still employed the phosphate of lime, with the same success, in most cases of phthisis that I have treated. I say in most, because I have noticed in the erethritic form, as well as in laryngeal phthisis, that the phosphate of lime is of no benefit, and is sometimes injurious. I have obtained equally favourable results in scrofula, in anæmia, in convalescents, and in a case of gunshot wound of the foot with serious complications and cachectic state. I have never used it in fractures, but if I had to do with them in the aged I certainly would not neglect its administration. One must use the remedy properly, for on the manner of its pre-

paration depends all the success, and I am convinced that those who have failed owe it in part to their ignorance of this fact. All the good results I have obtained during three years I owe to the chlorhydro-phosphate of lime (Coirre's solution). I have preferred this preparation on account of the principle upon which it is based—that hydrochloric acid being the acid of the gastric juice, it is under that form that the chlorhydro-phosphate of lime enters physiologically into the economy. To-day, it is true, although this opinion has gained in favour and is almost the only one admitted, I do not attach so much importance to it. The results obtained seem to me, indeed, to override every other consideration, inasmuch as the chloride of calcium contained in the chlorhydrate may take part in its effects. Another consideration is the facility of administration. It can be taken with food, mixed in a little wine, and be entirely imperceptible, even with children, and can be continued as long as desired. Let my *confreres* who have not used it accept my conviction, and their arsenal will be reinforced with a weapon which will render them frequent service.—*L'Union Médicale.*

From *La France Medicale.*

Treatment of Thrush.

By Dr. E. Ory *(Ancien Interne des Hopitaux).*

In the treatment of thrush it is necessary to remember that certain affections of the digestive organs, producing defective nutrition, and the inflammation of the buccal mucous membrane, with increased acidity of its secretion, are the conditions favourable to the development of the cryptogam (*Cptothrix buccalis* and *oidium albicaus*) which constitutes the affection. One ought, therefore, to direct his treatment as much to the general as to the local condition.

According to Blacke, when the general state is good, it will suffice to touch the mucous membrane several times a day with the finger, or a brush, dipped in the following wash :—

℞ Pure glycerine, 30 grammes.
Alum, 5 grammes.

Besides, we may employ intra-buccal irrigations of Vichy water, either pure or diluted with one-fourth of milk, or of a decoction of rhatany.

Trousseau advises mouth washes, composed of borate of soda and honey of roses, of each 15 grammes; or, chlorate of potash, 5 grammes ; honey of roses, 15 grammes. We may, with advantage, replace the honey of roses by syrup of rhatany. Lastly, in obstinate cases, he practises cauterization with nitrate of silver.

℞ Argenti nitratis, 1 gramme.
Aquæ destill, 15 gramme.

But this solution blackens the teeth : we may substitute for it a solution of sulphate of zinc or copper, which has not the same drawback. Bretonneau used to employ a topical application of calomel, mixed in gum arabic. Sée rubbed all the diseased points with a coarse rag, then bathed with the following :—Glycerine, 40 grammes ; starch and borax, of each, 50 centigrammes. West recommends a similar formula, for he does not use the preparation in which he finds the honey liable to ferment :

℞ Borax, 2 grammes.
Glycerine, 4 grammes.
Water, 30 grammes.

He applies this mixture with a soft rag, after having carefully washed the mouth with hot water. In the obstinate forms he cauterizes with nitrate of silver, 10 centigrammes of the nitrate in 30 grammes of water.

Parrot, in cases of thrush, often employs a mixture of equal parts of honey of roses and borax. He also recommends this wash :—Glycerine, 15 grammes ; honey of roses, 15 grammes ; chlorate of potash, 6 grammes. Then every two or three hours he administers a teaspoonful of a mixture of equal parts of *eau sucree* and Vichy water.

Muller recommends the use of salicylic acid as a wash :—

℞ Salicylic acid, 1 gramme.
Glycerine, 20 grammes.
Water, 80 grammes.

Dissolve in the glycerine, add the water.

Green formulated a creosote gargle for thrush. Lastly, we recall that it has been proposed to destroy the *oidium albicaus* by means of insufflations of sulphur or of pulverizations of sulphurous water.

Thevenot says that sulphur sublimed and washed, applied with a brush, is of remarkable efficacy.

From *Lo Sperimentale.*

On the Influence of Cutaneous Irritation upon the Secretion of Urine.

BY A. WALKENSTEIN (ARCH. FUR PATH. UND PHYS).

The experiments were made upon rabbits, to a portion of whose skin, previously shaved, various irritant substances were applied. He successively employed: tincture of iodine, unguento napoletano, tartarated antimony, croton oil, nitric, sulphuric, carbolic, and concentrated thymic, acids, caustic potash, essence of senny (mustard), moxas, &c. In all the experiments, about forty in number, the results were constant.

1. Rapid elevation of temperature, persisting until the cessation of the cutaneous irritation: at the same time a corresponding acceleration of the pulse and respiration.

2. Inflammatory reaction of the skin: infiltration of the subcutaneous cellular tissue, &c.

3. Diminution in volume of urine, increase of quantity of urea: rapid diminution of the chlorides, which only reappeared with the recovery of the animal.

4. Loss of appetite and of thirst, notable emaciation.

5. Albuminuria: urinary deposits (epithelial cells, blood globules, fibrous cylinders). The albuminuria was proportionate to the degree of irritation, the same is true of the renal alteration. If the irritation were slight, the kidneys were simply hyperæmic; if it were violent, parenchymtous nephritis existed coincident with a general hyperæmia of the whole parenchyma.

Mercurial ointment did not produce any kidney lesion. The mode of action of these different agents was naturally different. Some (cantharides, iodine, acids) entered the blood current, and determined directly in the kidneys the lesions manifested by the appearance of albumen in the urine; others produced feverishness, which was always accompanied by a parenchymatous alteration of the kidneys and a partial decomposition of the blood, a double source of the albuminuria.

Electricity was tried as an irritant agent, and the following facts noted:—

1. Rapid increase of temperature up to 40°: enormous acceleration of pulse and respiration. After twenty or thirty minutes all resumed their natural order; the functions remained normal.

2. Increase of volume of urine, and of the quantity of urea, diminution of the chlorides.

3. Slight albuminuria of from three to six hours' duration. In one case in which the irritation was long continued there was found abundant albuminuria which lasted thirty-six hours; the *post mortem* showed passive congestion of the kidneys.

The author explains the appearance of albuminuria under the influence of electric irritation by referring it to the reflex and persistent contraction of the renal arterioles.

Whitlow of the Thumb.

The first phalanx of the thumb of this patient presents two incisions. The first, located upon the inner side, was made some days ago without procuring any relief. The swelling and pain having increased, the man entered the wards of M. Verneuil. His *interne* made a deep incision in the median line. The pain soon disappeared, and the phlegmon has entered upon the road to resolution. *Apropos* of this case, M. Verneuil remarked that in whitlow, in general, the incision ought never to be made except in the median line. Lateral incisions not only expose to wounding the arteries and nerves, with their consequences, that is to say, hæmorrhage and temporary anæsthesia of the organ, but, besides, it is but seldom that they afford relief to the patient. Once again, incisions in the median line ought always to be preferred, for this double reason, that they expose to no accident, and are much more efficacious.—*Revue de Therapeutique Medico-Chirurgical.*

Oil of Cade in Sycosis.—Bazin. If the sycosis be recent, cut the hairs as close as possible to the diseased surfaces, and bathe the latter with the oil of cade. If the affection be of long standing, and the hair, more or less altered in its texture, have become, as far as the inflamed hair-bulb is concerned, a sort of thorn and a permanent source of irritation, the first care of the physician ought to be to remove this thorn, that is to say to practise epilation. This being done, apply meal poultices and absorbent powders, then bathe with the oil of cade.—*L'Union Médicale.*

From *Le Progrès Médical.*

Contusion of the Heart.

M. Terrillon presented to the *Société Anatomique* an anatomical specimen, probably unique; the enquiries which he has been able to make not presenting any analogous case. It was a contusion of the wall of the left heart in the neighbourhood of the apex, with rupture of the *columnæ carneæ* of the summit of the ventricle, fibrinous concretions in this region, and multiple ecchymoses upon the endocardium. The subject of this observation was a man about 45 years of age, a blacksmith, who, early in the morning, about 5 o'clock, shot himself in the left side of the chest in the region of the heart, with a firearm loaded with various projectiles. The same morning, at 9 o'clock, M. Terrillon found him in his wards at the "Sevres Street" Hospital. A large wound with black scorched edges existed at the point of junction of the seventh rib with its cartilage. A large quantity of blood issued from this wound. The patient was extremely anxious. There was no sign which might indicate a lesion of the heart. He died at six o'clock in the evening, 11 hours after the wound. At the autopsy there was found a rupture of the diaphragm with almost complete herina of the stomach into the left pleural cavity. Contusion of wall of stomach without perforation. Perforation of the left lung at its base, with infiltration of blood throughout the whole lower lobe. The charge was lodged in the vertebral column. The pericardium was intact, and contained a little reddish serosity. The apex of the left heart presented, in front, an extensive ecchymosis without rupture of the visceral pericardium, but with two small bloody collections. In the corresponding ventricle were two oval ecchymoses beneath the pericardium, near the auriculo ventricular passage. At the apex there was found a large, greyish, fibrinous clot, partly floating in the cavity and adhering to the torn *columnæ* of the apex at several points. These ruptures had been the cause of this deposit of fibrine. The wall of the heart towards the apex was infiltrated with extravasated blood.

Glycerini acidi carbolici, applied twice daily, is said to be efficient in tinea tonsurans.

From *Le Progres Medical.*

Extra Cardiac Bruits.

We subjoin the conclusion of the last chapter of M. Cuffer's article on extra-cardiac bruits.

1. All extra-cardiac souffles diminish, and oftentimes even completely disappear when the patient passes from the horizontal to the vertical position.

2. This modification is common to intra-cardiac souffles. One cannot therefore rely upon it for a differential diagnosis. The influence of the change of position, however, is much more pronounced in extra than intra-cardiac bruits.

3. Extra-cardiac souffles cease when the respiratory movements are accelerated synchronously with the movements of the heart. They are, on the other hand, augmented when the heart beats are exaggerated and the respiratory movements diminished.

Intra-cardiac murmurs are not at all modified under these conditions.

4. An extra-cardiac murmur may undergo change; it may pass in an insensible manner into the rythm of jerky respiration, of which it is indeed only an exaggerated form.

An intra-cardiac souffle never assumes this character, which, when it exists, may be considered as pathognomonic of an extra-cardiac bruit.

Lotion for Cracked Nipples.

℞ Pure picric acid.....13 grammes.
Distilled water .....1000 "
Solution .. ..No. 1.

℞ Pure picric acid.....1 gramme.
Distilled water .....1000 "
Solution .....No. 2.

To cure cracked nipples without stopping suckling, the nipple is carefully washed with warm water. Then the cracks and inflamed points are touched several times in succession with a piece of lint soaked in lotion No. 1. After each time the child has sucked, the nipple is placed for three or four minutes in a small glass filled with lotion No 2. Dr. Deberder, regarding the accompanying fever as a cause, and not as a consequence of cracked nipples, treats it with quinine in 0.50 gr. to 0.80 gr. a day, and uses Samaritan balm or poultices. A cure follows in from two to five days.—*L'Union Medicale.*

The Juice of the Bitter Cane in Saccharine Diabetes.

Among the numerous remedies employed, more or less rationally, in saccharine diabetes, we specially notice an interesting note by M. Gubler upon this remedy, so popular in South America, but to which hitherto nobody has directed attention.

The juice of the bitter cane is almost colorless or golden, of a bitter odour and strongly acid taste; it is employed in either the fresh or dry state, the juice of the latter (the dry cane) is stronger and contains a larger number of organic corpuscles. This latter M. Gubler has employed in two cases, and although a cure was not obtained, owing in the first case to the disease being very far advanced, and already presenting pulmonary lesions, and in the second to inability to keep the patient a long time under the influence of the remedy, yet the glycosuria was perceptibly diminished during the first week; the more interesting part of the article is a note by Dr. E. Lopez, of Lima, which relates a detailed observation of a patient, who, after nine days' use of the cane juice, had been radically cured, and of two other patients subjected to the same treatment, in whom in fifteen days the quantity of sugar had greatly diminished, but he regrets that owing to absence he was unable to complete the observation.

The method of administration is very simple: for an adult, four spoonfuls of the juice are taken every morning, fasting, and after the fourth week a similar dose is administered in the afternoon; the slight diarrhœa which is present during the early days does not take long to disappear, without necessitating a suspension of the treatment.—From *La Andalucia Medica.*

A Case of Swallowing Necrotic Nasal Bones, and their Remaining in the Oesophagus.

A woman, forty years of age, who for four years had suffered from syphilitic disease of the bones of the nose, discovered one morning on awaking that she could not swallow. On examination with the probe a hard body was discovered, which almost entirely filled up the tube. After some difficulty it was removed, and proved to be the left nasal bone and part of the palate bone.—*Rundschau.*

From *La France Medicale.*

The Gingivitis of Pregnant Women and its Treatment.

In almost all pregnant women the gums are the seat of morbid phenomena more or less pronounced: the gums are red, swollen, bleeding; at a more advanced stage, the teeth lose their solidity, and are spontaneously expelled from their alveolar sockets. In spite of this, functional troubles are relatively slightly marked, mastication, however, is more or less difficult. Of 75 women under observation the authors have found the gums affected six times. The increase of the mass of blood in circulation during pregnancy would be a pre-disposing cause of this spongy state of the gums; a state which Dr. Delestre has remarked in women during the menstrual period. Previous pregnancies and a poor general condition would appear to play the chief *role* as occasional causes. The affection begins oftenest about the fourth month, and disappears a month or two after delivery, in women who do not suckle; in nurses it may last a much longer time. The best mode of treatment consists in cauterizing every day or every other day, the free border of the gums with a solution of equal parts of hydrate of chloral and the alcoholate (compound spirits?) of horseradish.

From *L'Union Médicale Du Canada.*

Intravesical Injections without Catheterism.

More than ten years ago M. Duchaussoy made intravesical injections without using the catheter. He employed for this purpose a caoutchouc bag armed with an ivory mouth-piece. The operation is very simple. The first three fingers of one hand apply the lips of the meatus around the canula which is introduced within it; the other hand grasps the bag, and after having gently pressed it in order to fill the cavity of the urethra, compresses it sharply, so as to overcome the resistance of the sphincter and lodge the rest of the fluid within the bladder. The patient readily learns to do this for himself. If the quantity of liquid so injected is not sufficient, one can commence over again. Only, as this fluid is stored up the operation becomes

each time a little less easy. This procedure enables us to avoid the orchitis to which catheterism often gives rise when the prostate is irritated. It renders great service in cases of vesical catarrh, in which frequent irrigations are indicated. It is also very useful in patients who are subject to a painful tenesmus at the end of micturition. By injecting water into the bladder before this tenesmus occurs one succeeds in preventing it; but if it exist already, it is too late, for then the fluid can no longer pass.—*Abeille Médicale, Rev. de Therap.*

On the Diagnosis and Prognosis of Malignant Lymphadenoma.

M. Trélat recently read an interesting paper on this subject before the Société de Chirurgie (*Gazette Médicale*, 10, 1887). He referred to the case of a patient on whom he had operated in 1872, and who had died while under the influence of chloroform. This patient was admitted into La Pitié for a small tumour of the neck, which had grown very slowly, and was accompanied by glandular engorgement. He likewise had another but very small tumour on the thigh. At the autopsy similar formations were found in the viscera and vertebræ. Histological examination revealed that these tumours had the same composition—that of lymphadenomata. M. Trélat said that malignant lymphadenoma was an affection of rapid general diffusion, and which often should not be operated on. With M. Ponas, he had concluded to abstain from all intervention if an examination of the patient revealed an implication of the viscera. A large, vigorous, intelligent man of fifty-six years entered Charity Hospital in 1876, affected with a tumour of the left testicle. At the age of twelve years he had received a kick in the scrotum. At the age of military service he was retired for disease of the left testicle. He married, and had successively fourteen children. At the age of forty-eight he noticed a slight swelling of the left testicle, which was disregarded, the patient not entering the hospital until eight years later. The diagnosis was difficult; the tumour was smooth, resistant, comprising both testicle and epididymis. There was no effusion into the tunica vaginalis; the cord was slightly enlarged; there was but little pain, and the general health was excellent. At the upper portion of the eyebrow there was a small flabby tumour, similar to the small fatty tumour so frequently met with. Antisyphilitic treatment was negative. The slowness of growth, excluded carcinoma, and the absence of glandular implication, epithelioma; the diagnosis, therefore, inclined toward sarcoma. The tumour was removed by castration, and on section was of a greyish-red colour, similar to renal tissue. Here and there were disseminated greyish points and hæmorrhages. At the end of fifteen days the patient left the hospital in good condition. M. Malassez, on examining the tumour, found it to be a lymphadenoma. The patient remained well until the summer, when a new bump appeared on the left temple, and the right testicle began to grow, soon after followed by another bump on the right temple. There was no doubt now of the generalization of the disease. Emaciation progressed rapidly, and the patient died in a thoroughly cachectic condition. At the autopsy, analogous tumours were found in the liver, spleen, mesentery, mesenteric glands, the vertebræ and sternum, all of which were lymphadenomata. These two cases have led M. Trélat to establish the following rules: When in the presence of a tumour, manifestly a neoplasm, there is another small tumour in another part of the body, it is advisable to remove the latter for histological examination. If proved to be a lymphadenoma, intervention against the general affection is useless. The generalization of lymphadenoma is most insidious, and an operation often tends to hasten it.

E. F.

Acne Pills.

Iodide of Sulphur	4½ grains.
Extract of Dulcamara	3 "

Divide into ten pills. Direct one, two, or three a day to be taken, according to tolerance. Locally, a lotion of warm water to which a tablespoonful of the following is added, has been recommended by Prof. Hardy, to be used night and morning.—

Tinct. Benzoin	ʒi.
Potass. Sulphid	ʒi.
Aq. Distill	ʒxii

—*L'Union Medicale.*

THE CANADIAN
Journal of Medical Science,
A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor.*

TORONTO, OCTOBER, 1877.

CANADA MEDICAL ASSOCIATION.

The tenth annual meeting of this Association was held at the new building of the Windsor Hotel in Montreal, on September 12th and 13th. Though not attended by nearly as many of the profession as we should have liked to have seen present, the meeting was a representative one for the Provinces of Ontario, Quebec, Nova Scotia, and New Brunswick, and its proceedings were a decided success. The happy choice of a President in every way fitted for his duties, and popular with his officers, and the energy displayed by the committee of arrangements tended in no slight degree to that end. But successful as the meeting was in many respects we should not rest satisfied with this, but use our experience of the past to render still more successful the future of the Association. There is one point we would urge upon the attention of members, and that is, that a member intending to read a paper should have it ready when he goes to the meeting. No committee of arrangements can carry out their programme in its entirety, if their efforts are thwarted by readers of papers not being ready at the time allotted them. It would be well, too, if the Secretary were to notify members some time beforehand that no paper could be read unless notice had been given by a certain date, and the work of the committee of arrangements would be facilitated if they had some idea of the probable length of a paper. The publication of the transactions, which is promised this year, will have the effect of improving the papers, for a new zest will be given to their preparation by the knowledge that they are to appear and will be widely circulated in print. We hope the profession, generally, will sustain the efforts of the publication committee and make the undertaking successful. From the *personnel* of the committee, and from the guarantee fund already raised, we are satisfied that the work will go on to a speedy completion, and we reserve our review of the work done this year until the appearance of the volume enables us to "speak by the book."

In our last issue we gave a full list of the papers to be read, and need not repeat it. An agreeable disappointment this year to many was the fact that more papers were prepared than there was time to read, although for the first time a division was made into medical and surgical sections. Next year this will be avoided by extending the time of meeting from two to three days. After the usual business of reading the minutes, election of new members, &c., the President, Dr. Hingston, gave an able and interesting address, which was heartily applauded. A substantial luncheon, provided in the building, having been discussed by the members, the sections met at two o'clock and worked till six, the evening being spent in a very enjoyable way, the members availing themselves of the kind invitation of Mrs. Hingston to a reception and soiree at her hospitable mansion. At the morning session of Thursday, after routine business and the reading of the report of the committee on Therapeutics and New Remedies prepared by Dr. Fulton, and received with applause by the meeting, Dr. Joseph Workman, of Toronto, read a paper on Crime and Insanity, dealing with the subject in his usual able manner. This paper alone must command for the volume of transactions a large list of subscribers. At its conclusion it was moved by Dr. Hornibrook, seconded by Hon. D. Parker, "That in the opinion of this Association it is desirable in all criminal trials when medical opinion suggests the probability of mental unsoundness, the accused should be placed under the supervision of experts for a sufficient time to enable them to determine whether he was insane or not at the time the crime was committed." Carried unanimously.

Dr. Howard gave the following notice of motion, "That it is in the interest of justice that when post-mortem examinations are to be made, experts familiar with such scientific work should be employed by the Crown when procurable."

(We omitted to mention among the proceedings of Wednesday an able report on medicine by Dr. George Ross, of Montreal.)

After luncheon the sections met at two and proceeded with their work, adjourning at four to report to the meeting in general session.

Hon. Dr. Parker called attention to the increase of papers sent in, and the necessity for the session lasting three days instead of two.

After some discussion, a motion to that effect was carried.

Dr. Osler then read the following report of the committee on nominations :

President—Dr. Workman, of Toronto.

Secretary—Dr. David, Montreal.

Treasurer—Dr. Robillard, Montreal.

V. P. for Ontario—Dr. Macdonald, Hamilton.

V. P. for Quebec—Dr. Worthington, Sherbrooke, E. T.

V. P. for Nova Scotia—Dr. Cowie, Halifax.

V. P. for New Brunswick—Dr. McLaren, St. Johns.

Secretary for Ontario — Dr. Sweetland, Ottawa.

Secretary for Quebec—Dr. F. W. Campbell, Montreal.

Secretary for Nova Scotia—Dr. John Black, Halifax.

Secretary for New Brunswick—Dr. Atherton, Fredericton.

COMMITTEES.

On Publication—Drs. David, Robillard, F. W. Campbell, Howard and Osler.

On Medicine—Drs. Mullin, Hamilton; Ross, Montreal ; and LaMarche, Montreal.

On Surgery—Drs. Malloch, Hamilton ; Grassett, Toronto ; Farrell, Halifax.

On Obstetrics—Drs. Roseburgh, Hamilton ; U. Ogden, Toronto ; Trenholme, Montreal.

On Therapeutics—Drs. J. E. Kennedy, Toronto ; E. H. Kollmeyer, Montreal ; Woodhill, Halifax.

On Necrology—Drs. Riddell, Toronto ; Severin Lachapelle, Montreal ; Burgess, London.

Medical Educational and Literature—Drs. Ridley, Hamilton ; Michaud, Kamouraska ; and Howard, Montreal.

On Climatology—Drs. Playter, Toronto ; A. B. Larocque, Montreal ; Jennings, Halifax ; and Lachapelle, Montreal.

A discussion was raised by Dr. Osler with a view to ensure the publication of the annnal proceedings of the Association.

The committee on publication were authorized to publish them provided funds sufficient could be obtained.

Dr. Dugdale and Dr. Lamarche after auditing the Treasurer's books reported the receipts for the past year to have been $221.33 and the expenses $195.68, leaving a balance of $25.65.

On motion of Hon. Dr. Botsford the same allowance as last year was voted to Dr. David, the General Secretary.

A letter was read from the professional gentlemen of Hamilton inviting the Association to meet there next year.

On motion of Dr. David, seconded by Hon. Dr. Parker, the invitation was accepted.

Dr. Mullin, of Hamilton, thanked the Association for accepting the invitation, and named the following as a committee of arrangement : Drs. MacDonald, Malloch, Henry Ridley, G. W. Mackelkan and Mullin.

It was moved by Dr. Campbell, and carried unanimously, that the thanks of the Association be given to the Windsor Hotel Company for the admirable facilities afforded them.

On motion of Dr. Reeve, seconded by Dr. Zimmerman, a vote of thanks was passed to the resident members of the profession in Montreal for their courtesy and hospitality to outside members.

Dr. Bell moved, seconded by Dr. Playter, a vote of thanks to the committee of arrangements.

Dr. Bell gave notice that at the next meeting he would move to so amend the bye-laws as to admit members of the profession in British Columbia, Manitoba and Prince Edward's Island.

On motion Dr. Hingston left the chair, which was taken by Dr. Workman.

Moved by Dr. Zimmerman, seconded by Dr. Mullin, that the sincere thanks of the members be tendered to Dr. Hingston for his affable and courteous conduct while in the chair, and to Mrs. Hingston for her kind hospitality on the previous evening. Carried.

Dr. Hingston—Mr. President and gentlemen—I have pleasure in addressing you as President for the time—I beg to thank you for the kind manner in which you have received my name. I have endeavoured to do my duty to this Association, for I have always felt a great deal of interest in it (hear, hear), and I shall convey to Mrs. Hingston your kind expression.

A vote of thanks was passed to Drs. Brodie, Kimble, Wing, and other American gentlemen, for the honour they had paid the Association in being present throughout the sitting.

The meeting then adjourned.

On both days of the meeting additional attractions were offered by a most interesting exhibition of practical physiological apparatus by Dr. Wilkins, and demonstrations of Lister's apparatus for antiseptic surgery by Dr. Roddick. Dr. Fenwick showed his valuable collection of vesical calculi.

Kenneth Campbell & Co., the well-known wholesale druggists, manufacturing chemists and importers, of Montreal, had on inspection, during the session, a large assortment of McKeeson & Robbins' gelatine-coated pills, Norway cod liver oil, medicated syrups, elixirs, finid extracts and wafer capsules.

Mr. F. Gross showed excellent samples of splints, trusses, artificial legs, and other surgical appliances and instruments.

W. H. Schieffelin & Co., of New York, showed beautiful preparations of Gardner's purified hypophosphites. The Galvano-Faradic Company, of New York, also exhibited samples of their well-known instruments.

NOTICE.—It is the intention of the Publication Committee of the Canada Medical Association to publish the proceedings as soon as possible. Names of intending subscribers may be sent to the General or any of the Local Secretaries, or to Dr. Osler, Montreal, the Secretary of Committee. It is hoped that the volume will be out by Christmas.

THE ONTARIO MEDICAL COUNCIL AND FOREIGN QUALIFICATIONS.

We have always expressed ourselves very strongly of the opinion that, until Reciprocity is established between Great Britain and this country, the Ontario Medical Council is justified in demanding that holders of British qualifications desiring to practise in Ontario should pass the same examination as our own students, and the Council at its late meeting, by a large majority of its members, re-affirmed this principle. But there appears to be a screw loose somewhere, for what the Council decides in session and what its Registrar and a Board of Examiners, acting, we presume, under some authority, do in the interim in this matter, appear to be diametrically opposed. Holders of British diplomas have petitioned the Council to be allowed to register without examination; this was refused, and, submitting to the decision, several have presented themselves at the regular examinations and qualified for registration. This year a graduate from a German University petitioned the Council to be allowed to register without examination, and he, too, was refused; but after the meeting of the Council is over, we find that this gentleman's name has been placed on the register by the action of a special Board of Examiners at a special examination, and the Council in session is stultified by the very thing being done that they by their votes refused to authorize.

Now, strongly as we have advocated the enforcement of the provisions of the Ontario Medical Act with regard to foreign qualifications, we must say that we cannot see the fairness of compelling one man, a graduate of a British University, to pass the regular examination before registration, and then permitting another graduate holding a German qualification to have a special examination before a special Board. Such actions are sure to end disastrously to the dignity, prosperity, and perhaps even to the very existence of the Ontario Medical Council. For partiality so evident will inevitably alienate many who have hitherto supported it, and will be likely to convert some of its friends into earnest opponents, whilst it will strengthen the hands of those who have prophesied and

wished for its failure. It is useless to keep up the legalized farce of a costly system of medical education under the false cry of raising the standard, if the Council meet year after year, spend time and money, hold expensive examinations, and place an annual tax on the profession, while the public and the profession see that not only no good is thereby achieved, but that the Council is false to the best interests of those for whose good it was established, and that the confidence once placed in it must be withdrawn.

It was not for this that our Universities gave up their chartered rights and that many stifled all personal feelings of antagonism to coalesce with those holding, or professing to hold, views on therapeutics widely different, in order that the public might be enabled to place their trust in men of a higher and more uniform educational standard in medicine. It is one thing to profess to demand a fair preliminary examination, to lay down a severe curriculum of study, and to profess to exact a high standard at examinations; it is quite another thing when we come to enquire how far these admirable measures are carried into effect. It is one thing to announce that the matriculation examination of the Council is equal to that of the Provincial University and accepted by it; it is quite another thing when we find that the Provincial University has to rescind their acceptance and compel all would-be graduates to pass their matriculation before them. It is one thing to enact that those holding foreign qualifications must pass the same examinations as our own students; it is quite another thing directly the Council adjourns to take an unsuccessful petitioner with a foreign degree before a special Board and give him a special examination.

We do not look for a millennium in medical politics, but we know that the public and the profession of Ontario expect that the practices of the Council of the College of Physicians and Surgeons shall be in accord with their professions, and that the powers entrusted to them shall be exercised legitimately, impartially, and in accordance with the spirit of the Act under which they are constituted. No later than last session a name was struck off the register because it was found that the gentleman registered had been illegally examined by one of the former Eclectic Board; and yet the Executive, as soon as the body whose delegated power it holds adjourns, does the very thing of which the Council has just most emphatically declared it will have none, for they have already decided in regard to these *pro forma* examinations very much in the same manner as the Devonshire jury—"Not guilty, but don't do it again."

Canada Medical Association.—Exhibition of Pharmaceutical Preparations by John Wyeth and Brother, of Philadelphia. This firm had on exhibition samples of their excellent preparations, which attracted considerable attention, and were much admired by those present. Their dialysed iron is already well known. Their elixirs are elegant preparations, and are sure to have a large sale; whilst their tablets of compressed pills, or rather powders, are, from their shape, readily swallowed, and from their composition, easily dissolved. Many other pharmaceutical preparations were exhibited.

The Physicians' Day Book and Journal and Ledger.—We have examined these account books, published by the Henry Bill Publishing Company, of Hartford, Connecticut, whose advertisement appears in our columns, and are much pleased with them. We have seen no simpler method of keeping physicians' accounts.

Journalistic.—The *Archives of Clinical Surgery* and *The Hospital Gazette* have amalgamated, the form and size of the former journal being retained. Drs. E. J. Bermingham and F. A. Lyons will be the joint editors.

Toronto Eye and Ear Infirmary.—We are informed that Dr. Reeve has resigned his position as Surgeon to this Institution.

James Fulton, M.B., Trinity Medical School, has passed the primary examination before the Royal College of Surgeons, England.

BOOKS AND PAMPHLETS RECEIVED.

Pathology and Treatment of Sprains. By Richard O. Cowling, A.M., M.D. Read before the Kentucky State Medical Society.

Ecole de Medicine et de Chirurgie de Montreal. Facule Medicale de L'Universite Victoria, Session 1877-78.

Aiken as a Health Station. By W. H. Geddings, M.D. (Reprinted from Charleston *Medical and Surgical Journal.*)

The Relations Existing between Eczema and Psoriasis. By Robert Campbell, M.D. Read before the N. Y. Dermatological Society.

Pompholyx.—By A. R. Robinson, M.B., L.R.C.P.S., Edin. Reprints from *Archives of Dermatology.*

Verminous Bronchitis in Dogs.—Read before the Montreal Veterinary Medical Association. By Wm. Osler, M.D.., L.R.C.P., London.

Correspondence.

To the Editor of the Canadian Journal of Medical Science.

Dear Sir,—Please inform me, if you can, whether the medical curriculum is likely to be changed again next year. Is there any chance of botany or any other *important* subject being dropped from the second year examination, and if so, where is it likely to be placed, and what subject do you think will be substituted? Kindly reply, as we students are kept continually on the ragged edge.

Yours truly,

Student.

We give it up.—Ed. C. J. M. S.

On the occasion of the four hundredth anniversary of the University of Tubingen, the honorary title of M.D. was given to the following distinguished men: Tyndall, of London; Kolbe, of Leipsig; Tosting, of Gottingen; and Cohn, of Breslau.

Miscellaneous.

On the 5th, 6th and 7th of September the University of Apsula celebrated the four hundredth anniversary of its foundation.

Dr. Keyes states (*Archives of Dermatology*) that the use of tobacco will prevent the effects of the internal treatment of syphilis.

In regard to the combustion of oxygen, by one gas burner, it is considered to be equal to that used by eight men.

Dr. Barlow, of Charing Cross Hospital, has been appointed Assistant Physician to the London Hospital, in place of the late Dr. Bathurst Woodman.

Professor Helmholtz has been appointed Rector, and Professor Du Bois-Reymond, Dean of the Medical Faculty, of the University of Berlin.

The British Association, at the conclusion of its meeting at Plymouth, voted the sum of £1,081 for original scientific researches. The next meeting will be held in Dublin.

Mr. J. A. Wanklyn has been appointed Lecturer on Chemistry at St. George's Hospital, in the room of Dr. Noad, who has lately died after holding the office for many years.

Dr. Lusk, in a recent paper, strongly insisted that the obstetric patient does not enjoy absolute immunity from the injurious effects of chloroform. Paralysis of the heart or dangerous hæmorrhage may be induced. Cases were cited. These views were sustained by practitioners of large experience.

Sée recommends with confidence a combination of digitalis and iodide of potassium in the treatment of cases of great sexual excitability with tendency to hypochondria, etc., where, for instance, erection and ejaculation are produced by sight, touch, or thought about one of the opposite sex. He relates a striking case.

Deaths from Anæsthetics.—Deaths from anæsthetics continue to be reported with alarming frequency in England. Two occurred in one week in London, one under chloroform, the other under a mixture of chloroform and ether. Fatty degeneration was found in both instances, at the post-mortems.

Apomorphia as an Expectorant. — Dr. Moritz Wertner records (*Wiener Med. Presse*) his experience with this agent in a large number of cases; he employed it with both adults and children in quite minute (1 16 grain) doses, frequently repeated. He considers it a perfectly safe remedy, as he has never observed any ill effects follow its administration.—*Schmidt's Jahrbücher*, No. 5, 1877.

Canadian Medical Association.—Distinguished Visitor.—At the late meeting in Montreal, The Right Hon. Lyon Playfair, M.D., C.B., LL.D., M.P. for the University of Edinburgh, and late Postmaster-General in Gladstones Government, was present, and took a seat on the platform. He was elected an honorary member, and acknowledged the compliment in suitable terms. Dr. Taylor, of Edinburgh, was also present and called to a seat near the President.

An excellent method of opening deep-seated abscesses near important blood-vessels, as in Scarpa's triangle, is that devised by Mr. Hilton. A small incision is made through the skin and fascia, and through this a director is cautiously pushed into the cavity of the abscess, when pus will be seen escaping along its groove. A pair of dissecting forceps, with closed blades, is then passed along the director into the abscess, and its blades are separated so as to tear the abscess open, and as they are withdrawn, to dilate the tissues and provide a free outlet to the surface.

Resection of the Œsophagus.—We find the following preliminary report of a new operation by Prof. Czerny of Heidelberg in the *Centralblatt für Chirurgie*. An annular carcinoma, rendering the œsophagus impassable, even for a small tube, was removed on May 2nd, from a woman 51 years of age. The length of the piece removed was 6 ctmtr. The entire thickness of the œsophagus was taken away, and the lower extremity was then fastened in the wound made in the neck. On June 6th the patient was discharged well.—*Wiener Med. Presse.*

Transfusion Successfully Performed in a Child.—We find in the *American Journal of Obstetrics*, April, 1877, the particulars of a case of typhoid fever, in a child nine years of age, in whom hæmorrhage occurred from the gums, nose and kidneys, which it was found impossible to arrest. Petechiæ also appeared over the surface. He finally seemed almost *in articulo mortis*, when two and one-half ounces of *defibrinated* blood, from the child's father, was injected into the median vein. The hæmorrhage and hæmaturia ceased at once, and he made a good recovery.

Harmonious Relations in Belgium.—At Antwerp, measures have been taken by the physicians and pharmacists, acting through a joint conference committee fron "both branches of the medical corps" (*Am. Jl. Pharm.*), which promise to establish a friendly understanding such as has nowhere yet been found. This committee have succeeded in framing a short code of regulations, which have been adopted by Antwerp and several other cities of Belgium. Under this system of mutually-binding ethics, the physician must avoid the furnishing of drugs to his patient, and the prescribing of secret preparations; the pharmacist must refrain from giving medical advice, the substitution of prescriptions, and the advocacy of secret and proprietary remedies: and both shall avoid, in the presence of the client, every form of depreciatory reflection or unfair remark.—"*Proceedings*," *Brooklyn.*

Canada Medical Association—Names of those Present: Dr. Hingston, Pres.; Drs. W. Osler, F. W. Campbell, C. J. Morse, J. E. Berthelot, A. Proudfoot, L. O. Thayer, A. Robillard, A. H. David, G. E. Fenwick, G. Wilkins, Montreal; Adolphe Alt, R. Zimmerman, W. Canniff, Joseph Workman, E. Playter, R. A.

Reeve, J. Fulton, Toronto; A. J. Sweetland, J. A. Grant, Ottawa; Hy. Russell, Quebec; O. G. Adams, Island Pond; Hon. D. McN. Parker, Halifax; E. D. Worthington, Sherbrooke; A. B. Atherton, Fredericton, N. B.; E. Hornibrook, Mitchell, Ont.; J. Bascom, Uxbridge, Ont.; Theo. S. Covernton, Hamilton; A. T. Michaud, Kamouraska; J. B. Gibson, Dunham, P. Q.; L. B. Botsford, St. John, N. B.; R. Levi, Inverness; W. F. Coleman, St. John, N. B.; J. A. Mullin, Hamilton; Clifton E. Wing, Boston, Mass., delegate from the American Medical Association; T. B. Wheeler, Montreal; G. W. Campbell, Montreal; W. Gardner, Montreal; F. Buller, Montreal; G. Chevalier, Bedford; S. R. Schmidt, F. J. Shepherd, Montreal; O. C. Edwards, Montreal; J. Perrigo, Montreal; Geo. Ross, Montreal; E. C. Lachapelle, Montreal; R. A. Kennedy, Montreal; J. Bell, Montreal; A. B. Larocque, Montreal; A. E. Eckroyd, Mount Forest, Ont.; Charles M. Covernton, Simcoe; J. B. McConneil, Montreal; R. P. Howard, Montreal; G. E. Armstrong, Montreal; Wm. Brodie, delegate from the American Medical Association; W. Macdonald, Detroit, Mich.; W. Fuller, Montreal; J. D. Cline, Montreal; W. E. Bessey, Montreal; A. A. Browne, Montreal; T. G. Roddick, Montreal; A. T. Brosseau, Montreal; A. Lamarche, Montreal; J. S. Leprohon, Montreal; J. G. Dugdale, Montreal; George Andrew Park, Montreal; J. Reddy, Montreal; W. A. Molson, Montreal; M. O'Brien Ward, Montreal; L. J. A. N. William, Brigham; W. E. V. Mayrault, St. Andrews; Severin Lachapelle, Ville St. Henri; R. Macdonnell, Montreal; Robt. T. Godfrey, Montreal.

Dinner to the Canada Medical Association.—After the close of the annual meeting the medical profession of Montreal entertained the members at dinner at the City Club. Dr. Hingston, the retiring President, occupied the chair, having on his right the Right. Hon. Lyon Playfair, M.D., LL.D., C.B., and Dr. Brodie, of Detroit, and on his left Dr. Workman, the President for the ensuing year, and the Mayor of Montreal. Dr. F. W. Campbell, of Montreal, occupied the vice-chair, Drs. Howard and Robillard acting as croupiers. The usual loyal toasts being given and responded to, the toast of the Liberal Professions was eloquently given by Dr. Howard and duly acknowledged. Dr. Robillard followed with "The Medical Schools," Drs. G. W. Campbell, Lamarche, F. W. Campbell and Reeve replying for their respective Colleges. The "Mayor of Montreal" and "The Canaada Medical Association" were next on the list, His Worship and Dr. Workman being called upon to reply. Dr. Lyon Playfair, on rising to answer for "Our Guests," was enthusiastically received. He was followed by Dr. Taylor, of Edinburgh, Dr. Brodie, of Detroit, the Hon. Dr. Parker and Dr. Grant. "The Press" was acknowledged by Dr. Fenwick of *The Canada Med. and Surg. Journal*, Dr. F. W. Campbell of *The Canada Medical Record*, Dr. Zimmerman of The Canadian Journal of Medical Science, Dr. Bessey, of Montreal, for *The Canada Lancet*, Mr. Thomas White, jun., of Montreal, in a capital speech replying for the general press. For "The Medical Profession of Montreal," Dr. Osler was called upon. Dr. Playfair proposed "The Health of Dr. Hingston" in terms of the highest eulogy, and the toast was most cordially received. "God Save the Queen" was then sung and the company separated, having thoroughly enjoyed the generous banquet given by the Profession in Montreal to their visitors. Of the dinner itself we need say nothing, for it could not be surpassed.

Births, Marriages, and Deaths.

BIRTHS.

At Park View, on Monday, 17th inst., the wife of Dr. C. Whittier, of a son.

MARRIAGES.

At Mapleton, Embro, on Sept. 19th, at the residence of the bride's father, Fitzgerald Sutherland, M.D., of Norwich, to Jean, eldest daughter of D. Matheson, Esq.

At Dundas, on the 17th inst., by the Rev. P. B. de Lom, Armina F. D. MacGachen, to Emily Frances Maud, eidest daughter of the late Thomas Sutherland Parker, M.D., of Guelph.

On the 28th inst., at 42 Beech Street, Toronto, the residence of John H. Thom., Esq., M.A., brother-in-law of the bride, by the Rev. George Lawrence, John McNaughton, Esq., M.D., Newcastle, to Agnes, second daughter of the late Captain Wilkinson, of Clarke.

DEATHS.

At Barrie, on Friday, August 31st, James A. Alexander, M.D., formerly of St. Catharines, eldest son of the late John Alexander, of Barrie, in his 31st year.

THE

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TORONTO. NOVEMBER, 1877.

Selections: Medicine.

ON URÆMIC ASTHMA.*

BY T. CLIFFORD ALLBUTT, M.A., M.D.,

Physician to the General Infirmary, Leeds.

The affection upon which I venture to speak to-day is one of very great interest to us both as scientific and as practical physicians. Its phenomena are as striking and strange in themselves as they are inexplicable; and, on the other hand, the affection itself is one of the most agonising by which mortals are afflicted. I am not sure, indeed, from my own experience, whether the existence of a certain dyspnœa dependent directly upon uræmia, or connected directly, at any rate, with renal disease, is generally recognized by medical practitioners.† That persons having renal disease have therewith pulmo-cardiac and pleural affections, mostly of a secondary kind; and that such persons suffer from more or less dyspnœa is, of course, familiar lore. What I mean is, that I do not find it to be by any means familiarly known that the subjects of Bright's disease are liable to definite seizures, mainly consisting in intense dyspnœa, coming and going as ordinary asthma comes and goes, and depending as little as this does upon any permanent disease of the lungs.

First of all, then, I will describe the affection as I understand it, and, in doing so, I will keep to clinical facts as nearly as possible. Uræmic asthma is seen in its simplest and, I think, also in its worst form, in that kind of Bright's disease which is known as chronic granular kidney. It may be seen in any state of uræmia, whether this be dependent upon permanent or transient renal disorder; but, in the subjects of granular kidney, the affection is often very severe and very recurrent, and is often dissociated from pleuritic effusion, valvular disease of the heart, and other permanent causes of dyspnœa. How insidiously granular renal disease, with the constitutional state which belongs to it, or to which it belongs, may creep on is well enough known. For months, or even years, it may betray itself only by some loss of flesh, by some fading of the skin, by unusual fatigue after exertion, and so forth. During this time, vascular tension and cardiac hypertrophy are slowly advancing and establishing themselves unknown, it may be, to any one. One day may then come when such an one has an unpleasant interview with his solicitor, a warning from his doctor, or a quarrel in his home, and that night he is suddenly seized by a dyspnœa so terrible that he has to spring from his bed and strive for his very life, as it seems, for one, two, or three hours before peace brings sleep to his pillow, or rather to his pillows, for never again perhaps will he sleep with less than three or four pillows under his head and shoulders. Not that uræmic asthma always occurs at night any more than epilepsy does, but, like epilepsy, its first attacks are often nocturnal, and often

* Read before the Yorkshire Branch.

† Not only in my own intercourse with my brethren do I find doubts or hesitation about this symptom of uræmia, but I find in medical literature that the true nature and importance of these attacks is only recognized in the latest works on the subject. Dr. George Johnson has recently described uræmic asthma, and Dr. Dickinson describes it plainly in the new edition of his work. Uræmic asthma is, however, not mentioned in his first edition (1868); and it is referred to very doubtfully by Dr. Roberts in the chapter on Uræmia in his edition of 1872.

seize the patient in his sleep. Indeed, throughout the malady, the asthma is more terrible at night, as cardiac dyspnœa generally is likewise; still, in its repetition, uræmic asthma becomes more and more irregular in its recurrence, and finally may not wholly disappear for one hour out of the twenty-four. What happens is something as follows. The patient, if awake, becomes aware that his respirations are quickening and are shallower. The distress increases, and a throbbing labouring action of the heart intensifies it. The countenance now becomes anxious, apprehensive, or even terrified, and a somewhat peculiar general muscular restlessness comes on, which seems to be something more than the mere striving for breath or air. Now, with this intense distress, which anon becomes more than this—an agonizing, almost mortal conflict—the face is not puffed, congested, and blue, but nipped and pale, and the very lips themselves are blanched. This, in my experience, is always the case, and the observation is a very instructive one. Moreover, in many instances, though by no means in all, a more or less profuse sweat is of the essence of the attack, comes on, that is, with the primary phenomena, and not as a mere consequence of effort or fear. In two cases, I remember that an outbreak of perspiration upon the usually harsh skin was the very first symptom in the train of symptoms which constituted the attack. In other cases, sweating is unimportant in degree, or is even absent. To the ordinary observer, then, the patient is alarmed, and his aspect is apprehensive and pallid; he is extremely restless; he sits upright and breathes shallowly and rapidly; he speaks in gasps or makes rapid fretful signs, and not infrequently he is covered with profuse cold perspiration. To these observations the physician will add as follows: The temporal arteries stand out like pulsating cords, the radial and tracheal arteries are of tendinous rigidity, and the blood-stream is forced into these and other arteries under great pressure; the big overwrought heart heaves over a wide area of the left chest and seems to threaten to burst its bonds. There is as yet little or no cough, and but little sound of phlegm in the air-passages. The chest expands duly, and, on listening over the lungs, the air is heard to enter freely and rapidly over the whole of them, unless their capacity be lessened by some previous disease. After this contest has gone on for a longer or shorter time, the attack relaxes its hold, the respirations become easier, words and sentences are spoken, the face recovers some tranquillity, and there is usually some expectoration. This expectoration is frothy mucus, often tinged with blood; and, in one case under my care, every violent attack was followed by distinct pulmonary apoplexy in patches large enough to be mapped out by physical examination. In this case, the hæmoptysis was, of course, considerable. In all cases, the lungs fill with *rales* before the termination of the attack. Such are the characters of pure uræmic dyspnœa as seen apart from complications.

Let us now ask ourselves what explanation we can find as we sit watching this awful suffering. The first thing that strikes us is, that the condition is not one of cyanosis, but rather of pallor, shrinking, and incipient collapse; it so much resembles an attack of ordinary asthma in these respects, that the name uræmic asthma may properly be given to it. It is on listening to the chest that we find the most remarkable contrast with common asthma, in the perfect permeation of the pulmonary tissue by the inspired air. It is very strange to witness this strife for breath, as it seems, while, at the same time, we hear the air passing freely throughout the lungs. Indeed, the patient tells us, and we ourselves may see that he is not, as in asthma, unable to draw his breath, but that the drawn breath brings him no relief. It is clear that the air and the blood do not meet in the air-cells, but that the fault does not lie with the air. It must be the blood, then, which does not keep its appointment. Now, in an uncomplicated case, there is no permanent obstruction to the passage of the blood through the lungs; indeed, we know that, in a short time, the air and blood will come again together and the patient will find peace. How is this? Our thoughts now turn to asthma again, and we think of paroxysmal disorders in general, and analogy gradually leads us to suspect that, as in these so in uræmic

asthma, the nervous system must in some way be concerned. We are confirmed in this suspicion by the undoubted fact that the paramount causes of the accessions of uræmic asthma—the determining causes, I mean, of the times of their recurrence—are almost wholly of the kind which influence the nervous system. Although locomotion is not without some effect in disturbing respirations, yet, as I have already hinted, perturbation of mind rather than of body is the potent antecedent. In one of the worst cases I ever saw, the attacks were always brought on or greatly aggravated by such kinds of excitement. The needful strain of making his will, the painful visits of dear friends, the annoying visits of business people, or even the reception of more than a very few persons of any kind during the day, were the efficient causes of renewed seizures. On the other hand, perfect tranquillity in one chamber, and the remission of all calls and messages, postponed the attacks more or less completely. Again, one lady who had lost a friend in Bright's disease, and knew, therefore, but too well the meaning of albumen in the urine. She had her first asthma on the night of the day when I had unwittingly revealed to her the same terrible diagnosis of her own case also. In a third case, the first asthmatic seizure came upon a patient in the night of the day on which his partner had selfishly and rudely complained to him of his absence from business; and such instances I need not multiply.

How, then, can such irritations of the central nervous system determine the occurrence of this asthma? Before the Medical Section of this Association, at the meeting in Sheffield and on previous occasions, I expressed an opinion that mental distress or anxiety is a potent cause of chronic granular kidney.

Can, therefore, the cause which, when protracted, sets up granular kidney be, in its fluctuations, the cause of the asthmatic attacks? I think not. There seems to be a want of explaining hypothesis in this direction. It would seem rather to be some irritation descending directly upon the heart or pulmonary vessels and stopping or hindering the pulmonary circulation in such a manner that the air entering the air-cells finds no blood to meet it. This seems to me, on the whole, to offer a more likely explanation than the humoral hypothesis; namely, that these asthmatic attacks are evidences of efforts of nature to eliminate blood-poison by the pulmonary mucous membrane. We cannot well conceive of nature striving to push out an offensive tenant; the conception would rather be that, under conditions of osmosis, some ingredient of the blood was escaping upon the pulmonary tract. But the auscultatory phenomena do not support this view; they do not suggest asphyxia by infiltration of the air-cells, nor is the aspect of the patient the aspect of pulmonary congestion, with distribution of unaerated blood in the systemic vessels. A more likely hypothesis is, that the transient hindrance to the arrival of the blood at the air-surfaces is in the pulmonary vessels themselves. As the bronchioles, by a spasmodic contraction, prevent, in ordinary asthma, the passage of air to the blood, so it may be imagined that like crisping up of the pulmonary arterioles, on the other hand, in uræmic asthma could prevent the passage of blood to the air, and thus the one disease would be a tolerably precise counterpart of the other.*

So far, the hypothesis runs on four legs; but some difficulties still remain. The chief of these is the occurrence of pulmonary hæmorrhage as an integral part of the seizure. This seems to point to a repletion of the pulmonary vessels, and of their relief by bursting or transudation. Moreover, the establishment of some mucous exudation in all cases points in the same direction. Another difficulty lies in the relief often obtained by the use of digitalis. If digitalis contract the blood-vessels, it might rather aggravate than diminish the distress; now it does the reverse. If Dr. Johnson's belief in the opposition between the arterioles and the heart be correct, it may be that the administration of digitalis confirms the heart more than it increases the vascular resistance. If, as some other physiologists believe, the

* This hypothesis has been proposed by Dr. Dickenson in his edition of 1877 (p. 446), and also by Dr. George Johnson in his lectures recently published. Dr. Johnson pursues the comparison with other apnœas, in a very complete and interesting way, as my readers already know. He also offers a likely explanation of my difficulty in understanding the occurrence of pulmonary hæmorrhage.

heart and muscular arterioles are consentaneous, the good effects of digitalis would be more easy to comprehend; but the explanation of the attack would be discredited. From this discussion we may pass onward to treatment; for the effects of drugs upon the condition may help us to some assurance of the nature of the complaint.

As the good effects of digitalis are in some degree opposed to my hypothesis of a spasm of the pulmonary arterioles, so again, in its failure, nitrite of amyl offers a like opposition. When I had guessed that the attacks depended upon such spasm, I turned with much hope to this drug and with slight hopes to aconite. From neither of them, however, have I found the least aid.* In large and increasing doses of digitalis, on the other hand, I have found a means of permanent alleviation of the condition. By large doses, I mean doses between ten and thirty drops of the tincture repeated under careful observation. The essentially neurotic origin of the attacks points to a like direction of the means of relief, and points correctly; for in nervine sedatives we have most potent means at hand. Unfortunately, it is in chronic nephritis of all diseases that sedatives are least admissible; and, although in this disease sedatives often pass away, leaving the patient unharmed, yet in other cases the lightest doses of them cause serious or even fatal lethargy. The patient who in one week has had a quarter of a grain of morphia injected under his skin without harm, in another week dies of an eighth of a grain in his cough-mixture. Nor have we, so far as I know, any trustworthy guide to the state which permits and the state which forbids the opiates. Strangely enough, opiates by the stomach, with the gradual absorption of which the damaged kidneys would seem more able to compete, appear more harmful than morphia suddenly introduced into the circulation by the skin. To my great surprise, I have repeatedly seen subcutaneous morphia used for the breast-pang sometimes seen in chronic nephritis, as well as in uræmic asthma, without ill effects and with ease so precious that I have not dared to forbid its repetition. In no such case have I happened to see it cause danger, though I have never myself dared to prescribe it. To chloral and the inhalation of chloroform a like objection exists, but these means I do venture carefully to prescribe, and with some success. Bromide of potassium is not strong enough to produce rapid effects, but, in full doses, is much safer than stronger sedatives, and is a valuable adjunct to these. Finally, a few leeches to the sternum are often efficacious in giving some relief to the labouring chest.

To sum up, then, we must use all those well known means which prevent or diminish uræmia; we must guard the patient from annoyance and even from pleasurable excitement. If, in spite of our care, the attacks recur, we must give a mixture containing, say, twenty minims of tincture of digitalis, thirty or forty grains of bromide of potassium, and ten grains of chloral, with a liberal addition of ether and cardamoms, and we must repeat this after a due interval. If, nevertheless, the attack hold on its course, we may administer a little chloroform upon a handkerchief, so as to relax the spasm and dull the *besion de respirer*. Perhaps we ought, in extreme cases, to inject a little morphia under the skin; but this I dare not recommend.—*British Medical Journal.*

* It appears, as regards nitrite of amyl, others have been more fortunate than I.

The Dangers of Thoracentesis.—What I chiefly wished to say was this: 1. That when a lung, already the seat of tubercular disease, is compressed by a serous pleuritic effusion, the phthisis will often remain quiescent so long as that pressure is maintained, and that the removal of the fluid by thoracentesis is sometimes followed by rapid progress of the phthisis. Of this fact I am perfectly sure, and I quoted a striking instance. 2. That the conversion of a serous into a purulent effusion after paracentesis is favoured by the presence of certain constitutional cachexiæ, as, *e.g.*, the scrofulous cachexia. Of this also I cannot doubt. My statements were in no respect inconsistent with the fact advanced subsequently by the President, that a lung compressed by pleuritic effusion often becomes the seat of tubercle.—*J. Burney Yeo in Brit. Med. Journal.*

A CONTRIBUTION TO THE STUDY OF THE NATURE AND CONSEQUENCES OF MALARIAL POISONING.

BY WILLIAM A. HAMMOND, M.D.

In a paper on "Pigmentary Deposits in the Brain Resulting from Malarial Poisoning," published in the first volume of the Transactions of the American Neurological Association, 1875, I called attention to the subject of brain pigmentation and abnormal mental phenomena as results of intermittent fever and other malarial diseases, and for the first time pointed out the fact that in cases of affections of the nervous system having a miasmatic origin and in which presumably there are cerebral pigmentary deposits; like formations can often be detected in the retinæ by ophthalmoscopic examination. Since then other instances similar to those cited in the memoir in question have come under my observation, but the following case, presenting as it does some additonal features of interest, appears to be worthy of special mention.

C. H., a young man twenty-three years of age, was attacked for the first time in his life on May 25th of the present year with intermittent fever of the tertian type. He resided in Fifth Avenue, near 14th Street, a location not remarkable for salubrity. He was treated with large and repeated doses of sulphate of quinine, with the affect of arresting the paroxysms of ague in a few days. But about the 5th of June he was seized with a series of violent choreic movements of the head which occurred daily at the same time (from 9 to 10 o'clock in the morning), and during which the head was pulled forward, backward, and from one side to the other with great force and frequency for fifteen or twenty minutes.

During the continuance of the paroxysms the mind remained clear, and there was no distortion of face or change of complexion. Quinine failed to exercise the least influence over this condition, on the contrary, the paroxysms became stronger and occurred in the afternoon as well as in the morning. The patient's mind also became involved. He refused to talk and would sit hour after hour in a listless way with his hands on his knees and his eyes fixed on vacancy, occasionally bursting into tears without apparent cause.

On the 10th of June he was brought to me by his mother, an intelligent German woman, and from her I learned the foregoing particulars.

At this time he was anæmic in appearance, the pupils were largely dilated; he refused to talk or to answer questions unless spoken to in a loud and authoritative tone, and then, after some delay, would begin an answer which was left uncompleted. On my telling him to put out his tongue he obeyed, but kept it out till I told him to put it in again. Desiring to examine the blood with the microscope, I pricked the end of his finger with a needle and left the room, being absent about ten minutes, on my return he was still standing with his finger extended in exactly the same position in which I had left him. I took hold of his arm and raising it high above his head, left it there. After twenty-two minutes it began to fall slowly to his side. It will be perceived, therefore, that there was a certain degree of cataleptoid tendency present.

The microscopical examination of the blood showed the existence of numerous pigment-holding cells, but no free pigment.

The spleen was considerably but not excessively enlarged. I introduced into it through the anterior wall of the abdomen, the point of the hypodermic syringe, figured in the paper before referred to, and drew off about half a drachm of splenic blood. This was of a dark, almost black colour; on microscopical examination it was found to contain red corpuscles in diminished numbers, white corpuscles in augmented quantity and of greater than normal size, and numerous pigment-holding cells and masses of free pigment. This latter was generally in granules, sub-rotund in shape, and averaging about the 1-2800 of an inch in diameter. Occasionally these granules were aggregated in groups of irregular form, and again in figures distinctly stellate in shape. On adding, under the microscope, a drop of a strong solution of caustic potash the pigment immediately began to lose colour, first becoming a pale brown, and finally a yellow hue. It may be

stated that old pigment does not readily undergo this change.

On ophthalmoscopic examination the arteries of the retinæ were found to be of somewhat diminished size, and the choroid was paler than is usual in health. Along the course of the arteries in both eyes were masses of pigment, mainly, however, at the outer periphery of the retinæ.

And there were, also, what I had not previously witnessed in similar cases, several recent retinal hæmorrhages in each eye. These were uniformly from the larger portion of the arterial trunk, and, consequently, near the disc, though they in no case encroached upon this structure.

I treated this patient with large doses (twenty drops, three times a day, after meals) of the liquor of the chloro-phosphide of arsenic, and at the end of ten days, when he again visited me, there was a manifest improvement in all the symptoms. The choreic movements had entirely ceased, the mind was decidedly more active, and the nutrition and general appearance much better. The splenic blood, however, still contained pigment, though in diminished quantity. There was none to be found in the blood taken from the end of the finger, the back or the thigh.

The ophthalmoscope showed a marked change in the fundus of each eye. The masses of pigment were diminished in size though unchanged in colour. The retinal extravasations had entirely disappeared, leaving in their situations small, white spots about the third or fourth of a line in diameter.

I may state that throughout the whole course of the disease the patient had never complained of any disturbance of vision. His visual powers, as tested with Galezowski's test-types and chromatic scales, were perfectly normal.

I directed the treatment to be continued and, in addition, prescribed the dialysed iron in fifteen drop doses, three times a day.

I did not see this patient again till the third of September. He was then well except that his mind was a little sluggish. The splenic blood contained very little pigment, and the ophthalmoscopic appearances were normal except that the white spots, previously mentioned, persisted unchanged.

The interesting points about this case are:

1st. The existence of a large amount of pigment in the splenic blood while it was absent from the general circulation, though certainly present in the retinæ and probably in the cortical substance of the brain. This is to be explained, probably, by the hypothesis that at first the liver, through which organ the splenic blood passes, failed to retain the whole of the pigment, though eventually doing so.

2nd. The occurrence of retinal hæmorrhage in connection with malarial poisoning.

At first I thought that this was the first case of the kind that had been observed, but upon thorough research I ascertained that a similar instance had been noticed by Galezowski* as occurring in the practice of his and my distinguished friend, Dr. Noel Gueneau de Mussy. The case in question was that of a youth who was suddenly attacked with intense headache and high fever. A few days subsequently he complained of impaired vision, and on ophthalmoscopical examination, double-optic neuritis and numerous retinal hæmorrhages were discovered. Intermittent fever of the tertian type was now developed. Quinia was administered in repeated doses of about eight grains each, with the effect of curing the fever and the neuro-retinitis, and causing the disappearance of the retinal extravasations.—*St. Louis Clinical Record.*

THE TREATMENT OF SCIATICA.—Dr. Flemming gives, in the *Berlin. Klinische Wochenschrift*, the results of his experience of forty cases of sciatica by means of the sand-bath. The patient is placed in a kind of trough, and the affected limb is surrounded by sand, at a temperature of 100° Fahr. or more, for half an hour; after this a warm-water bath is administered. Recovery is stated to take place, upon the average, after twenty-four sand-baths. —*London Lancet.*

* Traite iconographique d'ophthalmoscopie. Paris, 1876, p. 190.

BILIOUSNESS AND ITS TREATMENT.

This is the title of quite an interesting paper by Dr. Fothergill, in the *Medical Times* of June 23. In discussing treatment, Dr. Fothergill remarks as follows: The medicinal treatment of biliary disorders next claims our attention. And it may be well to consider first that form of malady known as a bilious attack, and to which dark-complexioned persons of the biliary diathesis are most subject. Rarely do persons of other diathesis and fair persons suffer from those disturbances which may fairly be said to be connected with the presence of bile acids in excess; while as to those forms of biliary disturbance where the urine is laden with lithates—the condition Dr. Murchison calls lithæmia—persons of other diatheses seem equally liable to them, and they are found in fair and dark people alike. For those bilious attacks, then, which occur chiefly in those of the bilious diathesis, nothing is so good as alkaline-saline purgatives taken in some vegetable infusion immediately on getting out of bed in the morning. This should be washed down with some warm fluid which excites the peristaltic action of the bowels, and, if necessary, a vegetable laxative pill should be taken the night before. After a couple of liquid motions, the more copious the better, the bilious person feels pretty equal to the day's work before him. Rochelle salts, with a little sulphate of magnesium in infusion of buchu, form a most excellent morning purge, in my experience. Sir Joseph Fayrer has found, in his Indian experience, sulphate of magnesium with quinia or gentian, sufficient to produce two or three loose motions, an efficient measure in biliary congestion. Even with miserable anæmic individuals such purgation is necessary, and must precede all attempts to give chalybeates. Bilious persons somehow do not do well with iron. Iron may improve the oxidizing processes in persons ordinarily, but it does not suit persons labouring under biliary disorder; and Sir Joseph Fayrer found it did harm rather than good to anæmic subjects until the purgative plan had been thoroughly followed out, and the liver unloaded, as it is said. Even then purgation is to be maintained to a moderate extent. As long as there is a bitter taste—probably due to taurocholic acid—in the mouth in the morning, the purgation must be continued.

A very important matter in the treatment of biliousness is the question of the administration of mercury. In an ordinary bilious attack a mercurial pill is almost essential, and often free purgation without a mercurial leaves the condition unrelieved until a mercurial is given, when all goes well. This fact is well known clinically. The apparent conflict between this fact and the results of experimentation—that mercury reduces the secretion of bile by the liver—has troubled many persons, but really there is no difficulty in the matter. Mercury sweeps away the bile in the upper bowel, and so brings away bilious stools, especially when an excess of bile is circulating in the intestino-hepatic circulation. Such an action reduced the amount of bile passing out of the gallduct in animals experimented upon, because it removed the excess of bile going round and round, and thus, apparently, checked the secretion of bile by the liver. Mercury is then a true cholagogue, and its threatened disposition is now averted. Dr. Murchison thinks, too, that mercury has an action in inducing disintegration in the liver, as it helps to remove growths, notably syphilitic gummata and effused fibrin, by rendering the material more easily taken up by the lymphatics. This is a very ingenious suggestion. Certain it is that mercury gives great aid to a liver which is in difficulties, and it is equally certain that if persons who suffer from biliary troubles take, or have taken, mercury freely, it is impossible to treat them without a little of that agent. It is well, though, to keep the amount low, and to give a pill containing a little mercury at bedtime, and follow it up with an alkaline purge in the morning. It is pretty apparent from clinical observation that mercury is rather indicated when there is an excess of bile acids present. In cases where there is abundance of lithates it does less good, and is apt to do harm if the kidneys are not in their integrity. It is not unimportant to remember this. In all forms of biliousness, too, there is defective oxidation, and mercury and alkaline-salines are often more useful even to patients suffering

from coëxistent debility and anæmia than mineral acids and quinia, "the strength, flesh, and colour returning under what, at first sight, might have appeared a lowering treatment." Here I entirely agree with Dr. Murchison; and even after mineral acids and tonics are admissible, it is well to maintain the morning purgation. Iron rarely suits these patients, and should be withheld until the liver is once more acting efficiently and has thoroughly recovered its tone. Perhaps of all tonic agents strychnia is the one best adapted to the bilious. It greatly relieves the depression, and it is well to combine it with the nitro-hydrochloric acid.—*St. Louis Med. Journal.*

A Needle Found in the Brain.—At a meeting of the Pathological Society of Philadelphia (*Med. Times*), Dr. H. Lenox Hodge reported, that upon removing the calvaria of a subject in the anatomical rooms of the University of Pennsylvania, a sewing needle of medium size was found lying on the right hemisphere of the brain, nearly parallel to the superior longitudinal sinus, about an inch distant from it, and about an inch and a-half behind the fronto-parietal suture. The point and the eye of the needle were both unbroken. The point was directed backwards. The needle was much oxidized; and attached to the arachnoid surface of the dura mater by old bands of lymph, near the larger extremity of the needle.

No history of the cadaver, an adult male, could be obtained.

The needle appears to have given rise to no important changes, and had no apparent connection with the cause of death. The man seems to have died of phthisis.

It is a matter of interest how the needle reached the position. Other methods might be suggested, but it is most probable that it entered the anterior fontanelle during infancy, and thus passed to the place where it was found.

Dr. Richard A. Cleemann said that he had made use of the fact that a needle after being imbedded in tissue for a certain length of time becomes tarnished. He had extracted a fragment of needle, and was anxious to determine whether it was all that entered the foot. The broken end was tarnished. He fractured the needle, and, observing that the fractured ends presented the usual steel-like lustre, he concluded that he had removed the whole fragment. Had he broken it off, the fractured end of the removed portion would have been bright.—*Pacific Med. and Surg. Journal.*

APOMORPHIA.

This remarkable alkaloid is derived from morphia by the abstraction of the elements of water from the latter. Since its discovery by Mattheissen and Wright, in 1868, it has grown rapidly into notice and favour as a substance possessing singular physiological influence, with great promise of therapeutical usefulness.

M. Chouppe, from a series of carefully conducted experiments, has shown that apomorphia produces emesis through a different mechanism from tartar emetic, ipecacuanha, or its alkaloid, emetine. The conclusions were that (1) ipecac and its alkaloid, however introduced into the system, occasion emesis by the direct irritation of the terminal filaments of the pneumogastric nerves in the mucous coats of the stomach; whilst (2) tartar emetic and apomorphia appear to have a double effect—acting on the gastric mucous membrane, on the one hand, and the medulla oblongata, on the other. Yet there is this difference between them: that the action of the apomorphia is exerted directly and more energetically upon the origin of the par vagum than upon the gastric mucous membrane, whilst tartar emetic reverses the procedure. The proof is exhibited in the fact that emetic doses of tartar emetic are required to be larger when injected in the veins than when introduced into the stomach. With apomorphia, its maximum effect is induced by injection into the circulation (*Archives de Physiologie*, No. 1, 1875). Apomorphia, from the singular energy and unfailing promptitude of action (producing emesis within from 4 to 6 minutes); from the slight nauseant influence induced; from the transient character of the secondary effects, as drowsiness, giddiness, and slight weakness of the limbs; from the absence of the depressing effects which are attendant upon some other emetics; from the facility of its subcutaneous introduction into the system—these are characteristics which justly entitle its association with the most remarkable and useful accessions to modern materia medica, and well calculated to fulfill an important *role* in the province of therapeutics.

From clinical observation already recorded, apomorphia has proved a reliable and efficient

remedy with a wide range of application. Dr. Wm. F. Duncan says that from his experience of the hypodermic use of the hydrochlorate of apomorphia, as an emetic for children, "its value cannot be too highly esteemed" (*The Medical Record*, Aug. 7, 1875). The average time at which emesis occurred was 2·9 minutes, which is much less than the period required by the yellow sulphate of mercury.

Its prompt and efficient action in cases of croup and capillary bronchitis, unattended by nausea and violent retching, makes it a great boon to children; and the ready applicability, by hypodermic use, in recalcitrant subjects who take medicine only after a long and exhausting struggle, constitutes it a remedial resort of incalculable value. In the polyclinic of Heidelburg, Dr. Jurasy, after an experience of two years in cases of tracheitis and bronchitis, expresses great gratification at its efficiency as an expectorant. Minute doses, ranging from $\frac{1}{60}$th to $\frac{1}{20}$th of a grain, liberated the tenaceous mucus and relieved the cough by copious expectoration.

In bronchial catarrh, Reigel (*Cyclopædia of the Practice of Medicine*, Ziemssen, Vol. IV.) confirms its valuable expectorant qualities.

As an emetic in suffocative forms of tracheitis, in croupous bronchitis, and in bronchial catarrh, in which the impaired tone of the bronchial muscular tissues renders an elimination of the copious secretion difficult and inadequate, Riegel has found no agent comparable in promptness and thoroughness of action to apomorphia.

Juergensen and Hertz (*Cyclopædia of the Practice of Medicine*, Ziemssen, Vol. V.) have attested its satisfactory results in catarrhal pneumonia and œdema of the lungs.—*Clinic.*

A Great School of Pharmacy is being constructed in a portion of the grounds attached to the Luxembourg at Paris which will occupy in all the large space of 17,000 square yards, of which the laboratories will accommodate 600 working students. The school will be open in 1880.

Repeated Cold Baths in Typhoid Fever.—(*L'Union Medical*, May 29, 1877.)—Prof. Peter in an address before the Societe Medicale des Hopitaux, on the subject of cold baths as a system of treatment in typhoid fever, summed up his opinion of them in the following *resume:*

1. The physician in practice does not consider a typhoid unity; but he is engaged with typhoid *patients*, each offering daily diverse, complex and changeable *indications*, according to the lesions and symptoms.

2. Still less should he consider only one morbid element the *excess* of *heat.*

3. All systematic treatment directed towards a single symptom is absolutely illogical and insufficient.

4. The good results of the treatment by cold (when it produces any) are not due to the lowering of the temperature (when the lowered temperature can be maintained), but to a profound perturbation of the nervous system; the loss of heat is therefore a very indirect result of the treatment by cold baths and is due to a dynamic modification of the nervous, cutaneous and vascular systems.

5. Now this modification can be obtained by other hydro-therapeutic means, less dangerous than cold baths.

6. There are cases in which even cold sponging, imprudently employed or frequently repeated, is not without danger; a nervous shock, however slight, may become a dangerous one for a system enfeebled by typhoid fever.

7. When an accident does occur as a result of cold baths in typhoid, the dangers are grave and out of all proportion to the expected benefit; accordingly, I do not see the indication for cold baths, either to reduce the temperature or to produce a general modification at the system; and considering the terrible accidents they can bring about, I see only contra-indications.

8. In conditions every way comparable (same hospital, same months, same epidemic, and an equal number of patients) the treatment of typhoid *patients* by cold baths has given in Paris greater mortuary statistics than a rational treatment inspired by the indications.

9. The best system in therapeutics and particularly in the treatment of typhoid patients. (I intentionally say *typhoid patients* and not typhoid fever) is still and always will be, to have no *system* whatever.—*Detroit Med. Jour.*

HEREDITARY HEART DISEASE.—It is not often that a hereditary influence in the occurrence of heart disease can be distinctly traced to any wide extent, although it is often suspected. A remarkable example of such a transmission is recorded by Dr. Rezek, of Teplitz, in the *Wiener Med. Zeitung.* Of the pair from whom the family in question is descended there is reason to believe that the mother suffered from heart disease. They left two sons and five daughters. Of the sons, one is still alive, and suffers from heart disease; the other is dead, and suffered before death from dropsy. His son, moreover, suffers from some cardiac affection. The other son, still alive, has suffered for some years from heart disease, but his children are healthy. Of the three daughters, one died from heart disease, and of her five children all are healthy, but one has married and has had three children, two of whom are cyanotic. The second daughter of the original pair is still alive, and has suffered for many years from cardiac disturbances similar to those of her brother. Of her children, one daughter has died of heart disease, and another has married and has borne a child with well-marked congenital heart disease and cyanosis. The third daughter of the original pair has not suffered from heart disease. Care has apparently been taken in each instance to substantiate the diagnosis.—*London Lancet.*

ON THE EMPLOYMENT OF ERGOTINE IN HÆMORRHAGE, BY R. STRISOWER.—Carière has made a synopsis of this article from the Russian. The author reports a case of an unfortunate suffering with hæmorrhoids. For six months he had had hæmorrhages, which had resisted all treatment. Only once the persulphate of iron had arrested the flow for ten days. The patient was almost exhausted. Strisower wished to employ the ergotine by hypodermic injections, but the patient refusing, he exhibited the medicine by the rectum—five grains of ergotine to two ounces of glycerine. The hæmorrhages did not return, and six weeks after the patient had regained his strength for the most part.—J. D. FISKE, M.D., Baltimore.—*Maryland Med. Journal.*

Surgery.

INGROWING TOE-NAIL.

Dr. A. H. Hagard, of Oakland, California (in *Trans. Med. Society, California,* for 1876 and 1877, pg. 45, *et seq.*), contributes a very complete paper on this subject.

The toe-nail grows from a matrix, which lies in a fold of the skin near its base; in a large majority of cases, it comes forward with a thickened, recurved margin at either side, which lies easily in a groove in the soft parts that run along either side from the matrix to the end of the digit. A very notable difference occurs in the thickness of the nails in different persons. It is very largely the rule that a thick, robust nail (finger or toe) is provided, with recurved margins, imbedded in deep sulci on the sides of the digits. Dr. A. believes this conformation of the toe and nail determines a predisposition to the disease in question; and he has satisfied himself that the disease is often hereditary.

Anything may be an exciting cause that forces the incurved margin of the nail to so impinge upon the skin lining the bottom of the groove as to bruise, irritate or inflame the parts. The nail that is not viciously grown, but is entirely normal to the individual, in this way becomes the offending member, and the soft tissue somewhere along the groove, the suffering parts. Hence, the trouble may be produced in a toe with the predispositions noted, either by forcing the margin of the nail too firmly into the bottom of the sulcus, or by pressing the bottom of the groove up against the nail. These conditions are often associated in the production of the trouble.

The most fruitful exciting cause is the habit of wedging the foot into a narrow funnel-shaped stocking toe, as is done every time such a stocking is pushed into a boot or shoe. The next most frequent exciting cause is, wearing a very loose boot, with a cuneiform shape at the toe. Especially if it has a high heel, this tends to press the toes together at every step. Another exciting cause is wearing a boot that is too narrow for the foot.

A curious and important point connected with the cause of ingrowing toe-nail is this: In

walking—notably in running—just at the last of each step, nearly the whole weight of the body is thrown upon the well-padded end of the great toe. This is more emphatically so with the Caucasian, who "toes out" when he walks or runs. The Indian, on the other hand, throws himself forward in his loping gait, with a spring from all the toes, and thus "toes in." In the femur of an Indian, the angle which the head of the bone makes with the plane of its articular surface at the knee, is very much greater than in the femur of the white man. Now place the femurs upon the table so as to rest on their condyles at the lower end, and upon their shafts at the other; the head of the white man's femur rises but little above the surface of the table, while that of the Indian cocks up, giving a very obtuse angle with a surface of the table. Now place the head of each bone in its acetabulum, attach the leg and foot, and it is at once seen why the Indian lopes with his toes, while the white man runs with his big toe.

In the *first* stage of this trouble, cut the nail short, *trim both corners well back*, and keep the front rasped thin; avoid stockings with narrow toes; select boots with low heels and ample room for the toes, but fitting the instep snugly.

But if the patient comes, as he generally does, too late to be benefitted by these simple injunctions—if ulceration has taken place from pressure of the border of the nail in the bottom of the groove, and the soft parts are inflamed and indurated, the indication then is to perfectly relieve the bottom of the groove and the toe-nail pocket from the unhealthy pressure of the margin of the nail.

Two plans are proposed; one is temporizing, the other, radical. With the former object, two methods are mentioned. Removal of the nail entire gives relief until a new nail develops, when the trouble returns. Again, the free border of the nail may be trimmed away, back to near the base, so as to relieve the pressure for the time, and if well done, so as to leave no spicula or sharp edges to come forward and soon wound the flesh again, will give comfort; but this operation must be repeated every two or three months. Dr. A. prefers this to the former temporizing method.

Three methods for *radical* cure deserve mention. 1. Remove entire nail with its matrix. The objection to this is that it leaves the top of the toe unprotected. 2. If merely the margin of the nail with the matrix be removed, the nail will remain narrower, and the normal recurved margin will never be renewed. 3. If we remove the soft parts along the border of the toe so as to take away the groove and the obstruction to the growth of the angle of the nail, we as effectually cure the disease as when we remove the nail. This is a less objectionable operation than either of the above two. Care should be taken that the nail groove is effectually ablated, and especially that the upthrust of indurated tissue anterior to the outer angle is removed. As a rule, the operation will confine the patient to his lounge for a few days, but some patients walk around the day after. Dr. A. has never known of a relapse after this operation.

In cases where the deformed matrix sends forward a malformed, recurved margin, remove the margin of the nail and the matrix from which it grows. It may be proper in rare cases to combine two operations—remove the margin of the nail and the side of the toe.

There is no need for general anæsthesia in making these operations. The application to the toe of a little snow, pounded ice, or a freezing mixture will render the operation almost painless.

In some cases, where the engorgement of the tissue is great, from being long or severely irritated, the hæmorrhage will be out of all proportion to the size of the wound, but no harm can follow.

Dr. A. dresses the wound with salicylic acid in substance, using the dry powder, and orders the dressings to be kept wet for a few hours with cold water. Profuse granulations should be repressed, but they do not come up under the use of salicylic acid.—*Virginia Med. Monthly.*

Dr. Alfred S. Taylor has resigned the office of Lecturer on Medical Jurisprudence and Toxicology in Guy's Hospital. He has held this position since 1831, and also was lecturer on chemistry from 1832 to 1870.

A NEW METHOD OF TREATING FRACTURE OF THE CLAVICLE.

HENRY VAN BUREN, M.D., CHICAGO.

I make the first bandage three or four inches wide out of unbleached cotton, of double thickness and sufficient length. On one end of this bandage a loop is made, by returning the bandage on itself, and fastening the end with a few stitches. The hand on the injured side is then passed through this loop, and the loop carried up to a point just below the axillary margin. This bandage is then passed directly across the back, and under the sound arm and over the sound shoulder, and returned across the back, and pinned or stitched to itself at the point where the loop is formed.

The second bandage is then made and applied as follows:—

I flex the arm of the injured side and place the hand on the chest, pointing in the direction of the sound shoulder; I then take a piece of the same material as used in the first instance, and make a bandage four inches wide, of double thickness and sufficient length, and pin or stitch one end of this bandage to the lower margin of the first bandage, in front of the sound shoulder. It is then passed diagonally downward, and across the chest under the hand and forearm which has been flexed upon the chest, and carried around the arm at the elbow, and back on the dorsal surface of the forearm and hand to the point from which it started, and this end also pinned to the first bandage.

I then stitch the lower margins of this bandage together for a distance of about three inches at the elbow, thus forming a trough for the elbow to rest in. I also do the same at the upper end of this bandage, which forms another short trough for the hand to rest in.

This bandage or sling may be made as described above, before it is applied, and the elbow placed in the lower trough and the hand in the upper one; and the upper ends of the bandage pinned to the lower margin of the first bandage, at a point opposite the sound shoulder, as above indicated; indeed I prefer this plan because more convenient.

This sling serves the triple purpose of drawing the lower end of the arm forward and upward, and thus throwing the injured shoulder backward. It supports the fore-arm and hand in a comfortable and quiet position, and last, it prevents the first bandage from cording under the sound arm by its attachment to its lower margin.

To prevent the first bandage from producing excoriation in the axilla of the sound side, I usually cushion the bandage at this point by stitching on two or three extra thicknesses of the cotton cloth. The same may be done at the loop,—around the arm of the injured side, if necessary.—*Chicago Medical Journal.*

PIMPLY-FACE ACNE.

In a recent lecture by Mr. Jonathan Hutchison, an eminent London surgeon, in which he discusses the whole subject of this unsightly affection—its causes and appearances—he says in regard to the best treatment, as follows:

"When the face is covered with pimples, some of which are red, some contain pus, and others show only black points in their centres—all kinds being present, and all show in progress—it is commonly agreed to call the condition Acne.

The rules for the constitutional treatment of acne patients follow easily from what we have said. If the patient be young he should be made to use a cold bath every morning, to take plenty of exercise, to live liberally as regards meat diet, with a fair allowance of stimulants; and he should be cautioned or encouraged, as the case may be, in reference to sexual matters. As to medicines, a long course of small doses of arsenic will often be of great use. If constipation be present, the habitual use of a chalybeate aperient should be prescribed. You may do all this, however, most assiduously and gain nothing whatever, if you neglect local measures; whilst with the latter only, and without any change in the patient's habits, you may often get an acne eruption so nearly well that he will regard it gratefully as a cure. The chief local measure consists in destroying, by means of a fluid caustic, the inflamed follicles. With a fine-pointed glass brush, or a bit of soft wood cut to a point, you touch the inflamed spots from day to day. Take care not to apply too much.

In the left hand should be a roll of blotting paper with which to absorb the fluid if it has been deposited too abundantly. The best fluid to use is the acid nitrate of mercury. It will usually be necessary to repeat the touching once a week for a month or two, care ully seeking out every fresh spot. After that the patient should still see you once a month, in order that the cure may be kept up. The acid thus used does not leave larger scars than the spots would themselves do.

In acne rosacea the use of the caustic will again serve an excellent purpose. You may not only touch the spots themselves, but also pencil out the stray vessels which add so much to the patient's disfigurement. He, or more usually she, will gladly exchange a few slight and scarcely perceptible scars for the angry and very suspicious-looking redness of face which the disease causes.—*Medical Times and Gazette.*

Muscular Atrophy in Affections of the Joints.—In a memoir just published (H. B. Bailliere), M. Valtat, of Paris, discusses, in an exhaustive manner, the subject of muscular wasting in connection with articular disease. His conclusions may be briefly summed up as follows:—1st. That the majority of joint dis eases markedly influence the nutrition of the muscular system. 2nd. That, in the majority of the various kinds of arthritis, from the very onset of the disease, there supervenes considerable atrophy and more or less marked paralysis of certain muscles, particularly those acting on the affected joint. 3rd. This atrophy cannot be attributed to functional inactivity, nor to inflammation of the muscles, nerves, or spinal cords; but it is most likely produced in a reflex manner. 4th. It usually increases as long as the articular disease lasts, and although occasionally it may be transitory, in the immense majority of cases it persists after the cure of the arthritis, and then forms the chief hindrance to the restoration of movements in the limb. 5th. Its duration is generally very long, and it has only slight tendency to spontaneous cure. Sometimes, under the effects of simple exercise, the muscles may recover their power and volume, but this is not only rare, but is always tedious and often incomplete. 6th. These atrophic lesions are readily and rapidly cured by the use of feeble continuous currents, and better still by the combined use of galvanism and faradaism.—*London Lancet.*

The Surgical Use of the Omentum.—Dr. Kenneth McLeod, in a late paper from his experience in India, gave an account of a large number of cases of penetrating wounds of the abdomen where the omentum protruded. Consideration of such instances led to the belief that this was a special provision by which the intestines or other abdominal viscera were prevented from protruding from such penetrating wounds. After a detailed analysis of the cases, Dr. McLeod considers the anatomy of the omentum, the natural history of such cases, and the treatment. The omentum might be washed and reduced under antiseptic precautions, or it might be left unreduced. Ablation of the recently protruded mass was both unnecessary and dangerous; but, if irreducible, some advised a previous enlargement of the wound, and then reduction.

On Lipoma of the Tongue—Tizzoni and Parona described in the *Annali Universali de Medicina e di Chirurgia* for March, the case of Professor C. Gianni, aged 74, who had had a growth about a year, situated under the interior and under surface of the tongue, on the right side. When he had had it six months it was of the size of a filbert, and, thinking it was a collection of pus, he punctured it himself, but let out only a little blood. The tumour then rapidly grew, and attained the size of a large walnut, becoming very inconvenient, and causing constant spitting of saliva. Removal was effected by enucleation, and the nature of the growth was ascertained to be that of an ordinary soft lipoma. Microscopic examination confirmed the naked-eye opinion. The patient did well. A *resumé* is given of all the recorded cases of lipoma linguæ.—*London Med. Record,*

Danger from Hypodermic Injections.—Dr. E. F. Ingalls, in the *Chicago Medical Journal and Examiner*, calls the attention of the profession to the danger of injecting morphia hypodermically, and relates several cases in which fatal results rapidly followed its use. He is satisfied that no precaution can be taken which will ensure us against accidents from this mode of treatment.

Midwifery.

ON NON-INSTRUMENTAL AIDS TO LABOUR.*

BY WILLIAM STEPHENSON, M.D., F.R.C.S., EDIN.,

Professor of Midwifery, University of Aberdeen.

I. When may we, with advantage, Rupture the Membranes before full Dilatation of the Os?

Many a shrewd practitioner, with but little knowledge of the *science*, has acquired from experience very considerable skill in the *art* of obstetrics, more especially in many little details whereby a normal but a tardy labour can be facilitated. Such experience, however, is blind and liable to error, until the scientific basis upon which it rests is understood. Before even the science of midwifery existed, it was found that a change in the position of the patient was often very effectual in accelerating a lingering labour. Under such circumstances, it was a common resource to get the patient out of bed, make her kneel on the floor, or sit between a couple of chairs. This is often of great service, and a scientific explanation can be given why it should be so. But there is one condition where the labour is certain to be tedious, and where an ignorant midwife or medical attendant is very likely to try the above plan, with the result of only aggravating the evil. In this case, the cause of delay is a pendulous abdomen; and a knowledge of the normal axis of the uterus directs the attendant to lay the patient on her back and apply a binder. This illustration is a good example of a non-instrumental aid to labour, and also of the precision which is given to treatment by scientific knowledge as compared with the blind and ofttimes bungling actions of empiricism.

There are many ways by which an enlightened and experienced obstetrician can thus materially help on labour. Some, as the one referred to, are described in books; of others no mention is made, but they are left to be acquired by experience; and more, the result of such experience is at times found to be entirely at variance with the principles laid down by the authors of our text-books. Such is the case in the question which I propose to discuss on the present occasion: When may we, with advantage, rupture the membranes before the full dilatation of the os? I may mention that this question has reference only to normal labour, where the head presents and there exists no contraction of the pelvis, but where the progress of the first stage is retarded.

As a part of the history of our art it is interesting to observe how exaggerated were men's ideas regarding the importance of retaining intact "Nature's wedge," and how patiently and reluctantly former practitioners would wait, under the dread of being meddlesome, for Nature to do what they could readily have done, even when convinced that the non-rupture of the membranes was the cause of delay.

There is still remaining, at the present day, much of the dread of having too early recourse to this simple operation. In the face of the fact that much, and often long-continued, ineffectual exertion is often due to the integrity of the membranes, even before full dilatation of the os, and the other fact that such ineffectual work is often productive of serious after-complications, there is certainly a want of discussion on this point in our recent works. Leishman speaks of it where there is unusual thickness and resistance of the membranes: "But before we decide on rupturing them we should be sure that the proper function of the membranes has been effected in producing dilatation of the os." Playfair recommends puncture before completion of the first stage only when the liquor amnii is excessive in amount; and renews the oft-repeated and considerably exaggerated caution: "If we evacuated the liquor amnii prematurely, the pressure of the head on the cervix might produce irritation and seriously prolong the labour." This latter point is a question upon which the members of this Society might with profit express the results of their experience: in how far they have observed that irritation is produced, and the labour delayed, in cases where the membranes have ruptured or been punctured before, or early in the first stage. The term irritation is vague in the extreme, and conveys no definite idea to the mind.

* Read before the Aberdeen, Banff, and Kincardine Branch.

Before entering on the discussion of our question, it is well to define what is the exact meaning in which various terms are to be employed. By *full dilatation* of the os is meant, not obliteration, but only that degree which we know will permit the ready passage of the head; whilst the state in which the uterus and vagina are one continuous canal should be designated as *complete obliteration* of the os. The term *os* itself should be confined to the lumen of the *cervix*, and the latter term be always employed when speaking of the state of the tissues which compose it. *Dilatation*, also, should be limited to speaking of the size of the os, while we speak of the *expansion* of the cervix.

In reference to the puncture of the membranes, I have stated practice is at variance with teaching. Whilst our books say that this should not be done, except in rare cases, until the full dilatation of the os, many practitioners have found that by experience they can recognize certain favourable conditions, especially in multiparæ, where it is of great advantage to evacuate the waters when the os is not more than half dilated. We have seen that formerly there existed a very exaggerated idea of the function of the amniotic bag; that its purpose was supposed to be the dilatation of the whole length of the parturient canal; and that it should only be punctured when protruding at the external orifice. Modern opinion now regards the integrity of the membranes as no longer of any value after the full dilatation of the os; and it remains to be seen whether their true function should not be further curtailed, and that what at present is still empirical in practice does not rest on pure scientific grounds. The question must be answered by direct observation, and not by any imaginary views regarding the action of "Nature's wedge," the fœtal head being quite as much a wedge of nature as the bag of waters.

In discussing obstetric problems involving the first stage, it has been too exclusively the custom to take the degree of dilatation of the os, and the softness or dilatability of the tissues, as the criterion of the amount of progress made in the process of labour. This, it is easy to show, is an error; and in forming an opinion we must take cognizance of something more. It is a matter of common experience to find that the membranes rupture spontaneously while yet the os is but slightly dilated, and that the head at once descends and comes into contact with the whole lower segment, the parturient ring being in close relation to the head. Again, it is likewise a matter of common experience that the membranes give way when the os is of the same size as in the first case, and yet the head does not come into close relationship with the parturient ring; the cervix of the lower uterine segment in this case has not in its upper part been expanded to the full diameter of the head. If the finger be introduced well through the os, it is possible to feel the head resting on a ring of firm tissue. Sir James Simpson describes this as an adventitious band of fibres which delays the first stage. It is nothing more than the unexpanded structure of the lower uterine segment. It is evident that, although the os was of the same size in both cases, yet that the mechanism of the first stage was, in the first instance, in advance of the second; and that the difference lay in the degree of expansion of the lower segment, not in the dilatation of the os.

Next, take, what is also a matter of common experience, the condition of parts after delivery. The cervix is found hanging in the vagina, open, loosely relaxed, and elongated; while above, the walls of the uterus are firm and contracted, barely admitting the finger. From this observation (see also Matthews Duncan on *Mechanism of Natural and Morbid Parturition*), together with an examination of Braune's section of the frozen body of a female in the second stage of labour, it is evident that what occurs in the process of the first stage is not the mere opening up of a canal or tube which has been simply constricted in its middle; but, in addition to a constriction, there also exists a diaphragm, obstructing the lumen of the passage, and this obstruction is overcome by longitudinal as well as lateral stretching of this diaphragm. In easy labour the constriction and diaphragm disappear simultaneously; but it frequently occurs that the disappearance of the first is in advance of the second, and the canal is dilated to its full, whilst the diaphragm

has only been strained. No increase in the size of the os has taken place.

By studying the mechanism of the first stage we can readily understand the production of these two effects of expansion and longitudinal stretching. By muscular contraction the contents of the uterus are exposed to a uniform pressure. This force Schulz has called the "internal uterine pressure." It is exerted on the waters, and must, therefore, be equal in all directions; and as the lower portion of the uterus is the weaker, it must yield. This, then, is the expansive force. But, as the uterus also tends to shorten itself in its longitudinal diameter, there is also a longitudinal direction given to the force, whereby it becomes expulsive. This, from the tendency of the uterus to assume its original form, Schulz terms the "form restitution power"; but, as its direction is in the axis of the uterus, I would speak of it as the *axial* force: a term more congenial to our language.

When the membranes are yet entire, this axial force can act only through the ovum as a whole, waters and fœtus; and, therefore, at a disadvantage in proportion to the quantity of the liquor amnii. When this is large, as in hydramnios, the disadvantage is at its greatest; the force, in fact, being entirely converted into the uniform internal pressure. When the relative proportion between the quantity of waters and the size of the fœtus is less, as we find it normally, then the axial force is brought to bear on the fœtus; the fundus, acting on the breech, presses the child downwards, and the head is brought to bear on the lower uterine segment. When the internal uterine pressure is greater than the axial, the waters are forced downwards, past the presenting part, which recedes. When, however, the axial force is the greater, and can act through the fœtus, the contrary effect results; the water is forced upwards, and the head is brought into close proximity with the lower portion of the uterine walls. When the child is thus forced down during a pain, the uterine walls closely surround the head, and the membranes being still entire, the liquor amnii is divided into two portions; that in front of the head is called the forewaters. If the division be complete, then the entirety of the membranes is really a disadvantage; for now the forewaters but impede the more powerful action of the axial force. If the separation be incomplete, then the expansive action is only obtained, the internal pressure being still in excess of the axial. If the reverse be the case, the forewaters are but forced back above the head. By the mode of action, the internal uterine pressure is the force which tends to expand the lower uterine walls. Acting, in fact, like a glove-stretcher, its expulsive power can only act on the entire ovum, and is, therefore, at a disadvantage. The axial force is exerted mainly through the fœtus, and can exert its full strength only after the membranes are ruptured.

It seems, therefore, evident that *the function proper of the bag of waters should be limited to that of expansion only.* But the full dilatation of the os is effected, not by expansion alone, but also by longitudinal stretching. When, therefore, we find dilatation tardy from defect in degree or direction of the power alone, and not from any inherent character of the tissues, when once it is evident that the lower segment of the uterus is well expanded, the rupture of the membranes is the most effectual means of favouring the dilatation, by bringing the axial force into full action, and this irrespective of the degree of the size of the os.

By the researches of Dr. Matthews Duncan on the Power of Natural Labour, a beginning has been made to place this subject on a more purely scientific and accurate basis; but we are not yet in a position, and it requires qualifications which few possess to follow up the subject as he has done. He has, however, shown mathematically what has been long practically known, that partial evacuation of the liquor amnii is an efficient way of improving the power of the uterus, even when defective in amount. "It is a common belief," he says, "that the uterine pains increase in strength after the evacuation of the liquor amnii. Whether this be true or not, as commonly believed, I do not here consider. But it is certain that, if the uterine contractions remain of the same force after as before the partial evacuation of the liquor amnii, the power of the labour or the extruding force will be increased, as the

curvature of the contracting organ is increased." (*Researches in Obstetrics*, page 315.)

Having laid down the basis of our knowledge, it remains only to discuss the diagnosis of the conditions which warrant us in having recourse to rupture of the membranes before the full dilatation of the os. The first point is the determination of the degree of expansion of the lower uterine segment. We have seen that the size of the external os is no criterion of expansion. The os, in fact, may be very small, and yet expansion may be complete. It is by the internal os that we can best judge, but this is hard to reach, and difficult to determine its exact site. There is one means, however, of ready access, whereby we can form a proximate opinion: it is the degree of dilatation or updrawing of the vaginal *culs-de-sac*. This is a point which has been entirely left out in the consideration of the progress of the first stage. It is a matter of common experience to find, in the class of cases where we feel something is required to promote a labour with tardy dilatation of the os, that the upper part of the vagina is well expanded and drawn up, greatly increasing the perceptible diaphragm of the cervix, which alone obstructs the continuity of the developed canal. Now, we know that the longitudinal muscular fibres of the vagina run upwards, and are continuous with those of the body of the uterus, and that the attachments of the uterus in their upper portion correspond with the internal os. This portion, then, cannot undergo expansion without carrying with it the tissues which are in connection therewith. Consequently we find that, as the first stage of labour advances, the upper part of the vagina is dilated until it seems to coincide pretty closely with the upper part of the bony canal. When, therefore, a considerable portion of the lower segment of the uterus can be felt *in* the vagina, and not merely *through* its walls, expansion is certain to be complete, whatever may be the size of the parturient ring; and the tissues composing it are those of the cervix proper and not the uterus. Under such circumstances, I believe the membranes may be ruptured with advantage. It is, however, unnecessary in many cases to wait for the full development of the condition above described. I have taken the extreme state as being most readily understood, and indicating the direction in which our observations should be made.

Another class of cases, or it may be only an additional character to those of the first, are where the action of the uterus seems to be effecting, not steady dilatation, but extreme thinning of the tissue of the cervix; and also where the head is felt to be in close contact with the parturient ring, there being little or no bag of waters.

The next point to be considered is the quantity of liquor amnii; not the actual quantity, as is generally referred to when speaking of it being present in excess, but the proportion its amount bears to the size of the child, and also to the capacity of the amniotic sac. This latter is rarely quite filled; otherwise it would remain much more tense than it usually does in the intervals between the pains. If it be nearly or entirely distended, it will interfere with the power of restitution of form, by preventing alteration in the form of the uterus, and consequent action on the fœtus, even though the actual quantity of waters is not greater than ordinary. In this circumstance it must be regarded as really in excess, quite as much as where there is excess in actual quantity. Undue tension, therefore, of the membranes *during a relaxed state of the uterus*, must be regarded as unfavourable to the mechanism of labour, and as warranting an earlier rupture of the membranes than under other circumstances.

The liquor amnii must also be considered in excess, irrespectively of actual quantity, if it be unduly great in proportion to the size of the child. Here, again, it interferes with the action of the force which restores form, or the axial force. If, therefore, the parts of the child be not recognizable externally with ordinary facility *during a relaxed state of the uterus;* if *ballottement* be unusually facile, and especially can be felt during a pain, the probability is that there is a true excess of liquor amnii; and this condition would fully warrant the rupture of the membranes before the full dilatation of the os; the other conditions being favourable to the operation.

I have discussed the subject apart from the state of rigidity or dilatability of the cervix,

conditions which undoubtedly must be taken into consideration in determining any line of treatment in the first stage; but the subject of rigidity is one which requires discussion by itself, and would only tend to complicate and obscure the question.—*British Med. Journal.*

TUMORS OF THE VAGINA.—Dr. Neugerbauer has collected thirty-four cases of fibro-myoma of the vagina from different medical works, and has come to the following conclusions:

1. Solid tumors of the vagina not carcinomatous are rare.

2. These are generally either fibroids or fibromyomas, and very rarely pure sarcomas.

3. Their situation may be anywhere in the vagina. The development of the tumor is not in any way connected with the age of the patient.

4. The tumor usually grows slowly, but it can be very large and weigh even ten pounds.

5. They generally cause no inconvenience, but may be so large as to prevent childbirth.

6. The operation for their removal depends on what sort of a base they have. Severe hemorrhage can very easily occur. The result is in most cases favorable.

FOUR SUCCESSIVE RUPTURES OF THE UTERUS WITH FAVOURABLE TERMINATION.—Dr. J. M. Rose, of West Wingfield, N. Y., relates in the *Chicago Medical Journal and Examiner* the particulars of case in which rupture of the uterus occurred in four successive labours. The child escaped into the abdominal cavity, and was successfully extracted through the rent in the womb on each occasion. On the last the child was born alive. The usual symptoms of rupture were present on each occasion. The mother recovered completely after each labour.

HYPODERMIC INJECTIONS IN HERNIA have been used in France to relieve pain and spasm before employing taxis, for the reduction of strangulated hernia.

Original Communications.

THE PRINCIPAL METHODS OF EXAMINING THE NASO-PHARYNGEAL CAVITIES AND THEIR MOST FREQUENT DISEASES.

BY ADOLPH ALT, M.D., TORONTO.

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Otology, which a comparatively short time ago only has been taken up as a special branch of medical science, has as a necessary consequence led to a closer observation of an organ, which, though prominent in its appearance and service, had hitherto been nearly altogether neglected, *i.e.*, the nose and its surroundings. The diseases of this organ have recently been studied more carefully, and the results of these researches begin to attract the attention of a larger number of specialists. Of course, the Aurist and Laryngoscopist must needs be familiar with the diseases of the naso-pharyngeal cavities, and it is not my intention to teach them in the following anything new; but I think it may be of some interest to the general practitioner to get a knowledge of what has been accomplished in this most recent and smallest branch of medical science.

I. MODES OF EXAMINATION.

Whilst frequently enough our sense of smelling and our ear lead us to the right diagnosis—that the patient's nose is diseased—we need the following three modes of examination to find out the nature and seat of the affection in the nasal and the naso-pharyngeal cavities.

1. EXAMINATION THROUGH THE ANTERIOR NARES.

This mode of examining the nose being the easiest is also the oldest. The inspection may be done in the simplest way by taking hold of the *ala nasi* and stretching it outward and forward. Since the field thus open to aspect is a very limited one, the use of different kinds of specula has been adopted, thus doing away with the fingers and freeing both hands for other manipulations. The specula generally in use accomplish the same as the fingers do: they

stretch the lateral cartilaginous part of the nose and allow us to throw light into the latter. Among the different kinds of specula the one which bears the name of Dr. Goodwillie of New York is the simplest, and so far has done me all the service required. It consists of three branches of wire connected with each other on one and bearing loops on their other ends, which are inserted into the nostril and stretch it in the said way by means of their elasticity. After the nose has thus been opened by the speculum we throw light into it by means of a reflecting mirror. The light used is either the sunlight or artificial light (I prefer the latter). As reflector we may use the concave mirror with a central hole which is used for the examination of the ear, and it may either be held by a handle or, to free our hands, be attached to the forehead or illuminating apparatus.

By this mode of examination we get a good view of the anterior and lower (concave) portions of the middle concha, the lower concha, the septum narium and the floor of the nasal cavity. *Sometimes* we see also the posterior wall of the pharynx, the orifice of the Eustachian tube and the soft palate. *Zaufal*, who recently (September, 1877, *Archiv. füe Ohrenheilkunde*) recommended the use of long, funnel-shaped specula (like the ear-speculum), claims that by his method he can *always* examine these latter parts most satisfactorily. Though I have no experience with his specula, the name of the author is sufficient proof that the examination of the nose through the anterior nares has thus considerably gained in usefulness.

If we look into the nose by aid of these instruments the mucous membrane shows a pale reddish tint. Both conchæ appear like tumours of the same colour: sometimes the bone shines through the membrane and adds its yellowish hue to the red. The lower concha is distant enough from the floor of the nose to allow us to examine the whole of the lower nasal meatus. The middle meatus (between lower and middle concha) is so narrow, especially in its posterior part, that we can see only about half of the convex (upper) part of the lower concha. This sometimes has a rough appearance, which is caused by some bony protuberances and must not be mistaken for a papillary swelling of the mucous membrane. To guard us against such a mistake it is well to use a probe which is bent in such a way as to remove its handle from the narrow field of examination. Above the lower concha, and lying a little farther backward, we see the free anterior edge of the middle concha. The upper concha is mostly invisible. *Michel* states that he sometimes was able to see the roof of the nasal cavity and even the opening of the sphenoid cavity. Nobody else seems ever to have been so fortunate.

The septum narium can be examined backward to its free edge and upward to the upper nasal meatus. It is mostly somewhat concave on one, and convex on the other side, and the yellow bone shining through the red mucous membrane gives it a peculiar appearance.

The normal mucous membrane is nearly altogether smooth, only at the edges of the conchæ it sometimes has a more velvet-like appearance.

2. Examination through the Posterior Nares.

Though by the method of examining the nose through the anterior nares we are able to detect a great many important changes, our examination will be incomplete unless we explore the cavities also through the posterior nares. This mode of examination, known under the name of rhinoscopy, requires a considerable amount of skill, and is more difficult yet, since we must to a greater extent rely on our patient; moreover, in a small percentage of cases we will be utterly unable to make a rhinoscopic examination, since the patient will counteract all our efforts, or because the space between the soft palate and the posterior wall of the pharynx is too narrow.

The instrument commonly used for this method is a small round mirror (similar to the laryngoscopic mirror) attached to a handle nearly at right angles. The mirrors generally in use vary in diameter from 1 to 1½ centimetres.

For the examination the patient must open the mouth wide, retract the lips, so as to show the teeth, keep the tongue lying at the floor of the mouth, and breathe quietly. This is for some patients a very hard task, and we must

exercise with them often for weeks before we are able to make a satisfactory examination. The uvula does not always interfere with our mirror; if it does it must be pushed aside or drawn up and forward by means of a hook or some similar instrument. If the patient is well enough exercised to bear the entering of the mirror we depress the tongue with a spatula, illuminate the pharyngeal cavity and push the small mirror back into the mouth on one side of the uvula, thereby carefully avoiding to touch the arcus palatinæ or the posterior wall of the pharynx, which at once will produce reflex contractions. The illumination is done again by the same reflecting mirror, the forehead mirror deserving the preference (or the one fastened to the illuminating apparatus).

We commonly begin our examination by looking for the septum narium in the image of the small mirror. This appears as a straight wall running from above, downwards and separating the whole field into two parts. While doing so we must constantly keep in mind that the more we move the handle of our mirror downward (that is, the mirror to the perpendicular position) the farther forward lie the parts seen in the image and the more we move the handle upward (that is, the mirror towards the horizontal position) the farther backward lie the parts we see in the mirror. Before we have become so accustomed to this manipulation that we can look at all the different parts which we can see with the mirror without thinking of the movements of our instrument, we have not gained the skill which is absolutely necessary for a satisfactory rhinoscopic examination.

Now, what can we see with the mirror? First, the posterior wall of the pharynx and the fornix pharyngis, which are attached to the upper vertebrae and the base of the skull. In the cupola pharyngis we find that the mucous membrane has a ragged irregular appearance, which is caused by the adenoid tissue embedded in it and called the tonsilla pharyngis. At each side the posterior wall of the pharynx passes over into a small excavation called Rosenmueller's fossa, in front of which we see the elevated tuberculum with the pharyngeal orifice of the Eustachian tube. At each side of the septum narium we look into the choanæ and see the posterior end of the concha mediæ and the middle nasal meatus; only sometimes we see parts of the other conchæ. The conchæ have a more yellowish, sometimes metallic lustre, in comparison with the reddish colour of the other parts. If we move the handle of our mirror lower down yet we see the nasal side of the soft palate.

3. Palpation.

Palpation of the nose either through the anterior or posterior nares is probably as old a method as the inspection through the anterior nares. Though most diseases can be detected and studied by the former two methods of examining, this third one may in some cases be necessary to complete our examination and give, for instance, information about the elasticity and consistency of a tumour. The mode of palpation of the nose through the anterior nares need not be explained. To be able to palpate the nose through the posterior nares requires often preparatory exercise. It is good in such cases to begin by slightly touching the pharynx with one finger, and to progress gradually as the patient gets accustomed to it. We use the index finger of the right for entering the left and the one of the left for entering the right half of the nasal cavity of the patient. The parts we can explore by this method are, besides tumours, Rosenmueller's fossa, the tuberculum and the orifice of the Eustachian tubes.

II. Diseases of the Nose.

a. Acute catarrhal rhinitis.

The most frequent among the nasal diseases is the acute catarrhal rhinitis. It is commonly caused by taking cold; sometimes by inhalation of irritating vapours, the internal use of iodide of potassium, etc. The symptoms are: swelling of the mucous membrane, an abnormal secretion, loss of the sense of smelling (sometimes also tasting), and in some persons fever. The secretion from the mucous membrane, first serous, becomes later on mucoid, and finally, more or less muco-purulent.

The swelling of the mucous membrane varies in degree, but mostly is such as to produce entire stenosis of the nose. This swelling is probably due to the erectile bodies which lie between the periosteum and the mucous membrane of the

conchæ (first described by *Kohlrausch*). By inspection we see that especially the conchæ are greatly swollen, their mucous membrane is œdematous and very red. The same picture is obtained by the rhinoscopic examination.

The disease lasts from one to two weeks, and generally ceases without medical aid. Sometimes, however, it goes on into a chronic state. In these latter cases it is often very useful to inject a solution of nitrate of silver with the posterior nares syringe into the choanæ. Another mode of treatment is to blow a powder of nitrate of silver and talcum (1-3:20) into the nose either through the anterior or posterior nares (the latter is preferable). Sometimes the patients suffer from sneezing fits. These are commonly checked by morphine, which is best administered in the shape of a snuffing powder.

The disease may spread over the adjoining mucous membranes, especially the lachrymal duct, conjunctiva, Eustachian tube, pharynx, larynx, etc. If it is accompanied by much and severe headache we presume that the catarrh has spread to the frontal cavities.

b. Acute blennorrhoic rhinitis.

This form of nasal disease is comparatively rare. It is either caused by direct inoculation of blennorrhoic secretion from other organs upon the mucous membrane of the nose, or by traumatism, or it develops from a simple catarrhal rhinitis. The examination by inspection and by rhinoscopy reveals a higher degree of swelling of the mucous membrane than in acute catarrhal rhinitis. The main characteristic symptom is, however, only the blennorrhoic secretion. Like all purulent inflammations it leads frequently to superficial ulcerations and can be propagated upon the mucous membrane of the parts surrounding the nose. The blennorrhoic rhinitis lasts always several weeks, even months. In very severe cases, especially in children, it may lead to death by causing affections of the brain. The ulcers sometimes produce caries of the bone and cartilage. The worst cases are generally produced by infection with gonorrhoic secretions.

The best remedy for this disease (besides cold applications and leeches in the earliest stage) is nitrate of silver in a five grain solution, applied by the posterior nares syringe. Great care should be taken to cleanse first the nasal passages from all crusts and pus, which is best done by the posterior nares syringe or a common Davis' syringe. Also is it well not to inject more than two or three drops of the solution. Tannin, alum, etc., do not yield as good results as the nitrate of silver.

c. Chronic purulent rhinitis. Ozæna.

The chronic purulent rhinitis develops from an acute catarrhal, more frequently from an acute blennorrhoic rhinitis. It occurs, however, chiefly in scrofulous or syphilitic individuals. The first stage of the disease is that of hypertrophy of the mucous membrane. The latter is immensely swollen and bluish red. If the disease is allowed to run its course it leads to atrophy of the mucous membrane. We find it then very thin and pale and its epithelial cells dim, so as to give it a dull appearance. Only few cases of chronic rhinitis show a profuse secretion, in most of them the secretion is very sticky and apt to get dry. The dried secretions then form crusts on the surface of the mucous membrane which often are very large. The secretion is mainly a purulent one, but we find besides the round cells a great number of dead and thrown off epithelial cells in it. The crusts have a very characteristic greenish appearance: sometimes we find red spots in them, remains of small extravasations. They adhere more or less firmly to the mucous membrane. These crusts, when remaining in the nasal cavities, very soon decay, and thus produce a foul smell, known as ozæna. This symptom is frequently what brings the patient to the physician, and this is usually very late. The disease is very apt to spread over the neighbouring cavities. A stinging pain in the cheek and forehead commonly announce these complications. The hyperplasia of the mucous membranes often leads to papillomatous new formations. As in the acute blennorrhoic rhinitis we find not unfrequently ulcerations, which sometimes produce caries. A most common complication is that the external skin of the nose swells, becomes infiltrated and excoriated. The disease is a very tedious one, but if treated with the necessary patience, can mostly be cured. Only in cases in which the mucous mem-

brane is totally atrophied and the sense of smell lost, the prognosis is a very bad one.

The treatment consists in removing the fluid and dry secretions and reducing the mucous membrane to its normal state. The first is done by carefully syringing the nose with lukewarm water, in which we may dissolve some chlorate of potash (one teaspoonful to a pint of water). This has to be done two or three times a day and to be continued until the nasal passages get free. It is best to use again Davis' syringe in the way above described. If the disease originated on a specific base we must, of course, at the same time treat the patient accordingly. After the nasal passages have been carefully cleaned the application of a five or ten grain solution of nitrate of silver with the posterior nares syringe is of great benefit; sometimes its administration in the shape of a powder may be preferable. If all the secretion is removed the ozæna will cease. The hypertrophic parts of the mucous membrane (especially occupying the conchæ) may be treated by the application of nitrate of silver in substance, or be removed by galvano-cautery, which latter causes comparatively little pain.

d. Epistaxis (Hæmorrhage).

Hæmorrhage from the nose is of comparatively frequent occurrence. Its ætiological moments are so manifold, that it would take too much space to consider them in this paper. In most of the cases the hæmorrhage ceases without medical interference by coagulation. Where this does not take place readily we may first apply external compression. If we do not stop the bleeding that way we may fill the anterior nares with picked lint. In using these two methods we have to watch carefully whether the blood does not run down into the pharynx. If it does, we may resort to cold or astringent injections (alum, tannin, zincum sulfuricum, etc.). The only remedy, however, which will surely lead to a satisfactory result is the stopping up of the posterior and anterior nares at the same time. For the stopping up of the posterior nares Belloc's tube and, if this is wanting, an elastic catheter may be used with great success.

It would lead us too far to speak here also of the syphilitic affections and tumours of the nose. By the above-described methods of examination we are, of course, enabled to make a sure diagnosis. Their treatment is according to general rules, and every practitioner is acquainted with those.

A CASE OF ADENOID CANCER OF THE RECTUM.

BY GEO. WRIGHT, A. M., M. D., TORONTO.

The following history of a case which came under my own observation and was most interesting in some of its features, is presented with the hope that lessons it inculcates may not be altogether valueless :—

Mrs. S——, age 39, the mother of seven children, first observed the symptoms of the disease which terminated her life about fifteen months ago, after the birth of her last child.

This is the point from which she dates the commencement of her illness. There is strong reason, however, for believing that the trouble began to develop at a considerably more remote date.

The first indication of disease was a gnawing pain and tenderness in the left iliac fossa. During her last pregnancy the patient suffered unusually, especially in this region. After the birth of the last child, however, all the symptoms became more aggravated. There was tenderness in the left iliac region, with exacerbations of pain at intervals varying from a few days to several weeks. These periodic attacks of pain were generally so severe as to require urgent treatment. From a friend I learned that, since December last, she has been passing considerable quantities of mucous with more or less blood; that she has had several of these attacks of extreme pain commencing in the iliac region and extending more or less over the entire abdomen; that her bowels have been rather obstinately constipated during all this period, and that the constipation became more aggravated every week until her last illness.

I was called to see Mrs. S—— on the morning of Tuesday, 26th June last. I found her suffering extreme pain over the entire abdomen, the left iliac fossa and the whole of the corresponding side being the parts where the pain was

most exquisite. There was also persistent vomiting the stomach rejecting everything almost immediately. There was more or less tympanitis, but it was most marked upon the right side, particularly in the iliac region. The temperature was very slightly elevated and the pulse about 76-78. I ordered the patient powders consisting of 5 grain doses of Bismuth Trisnit. and grain doses of Pulv. Opii every four hours with the view of controlling the more urgent symptoms of vomiting and pain. In the evening I received a message stating that the patient was no better. I then ordered the following mixture:

℞ Acid Hydrocyan Dil ..... *m*iiss.
Liquor Bismuth ..... ʒss.
Morph. Sulph..... gr¼.
Aquæ .....ad ʒss.

M.

The dose to be taken every four hours.

On the following morning, June 27, I found the patient much more comfortable. Vomiting had entirely ceased, and there was comparative freedom from pain and tenderness. Pulse 72. As the bowels had not been moved since the previous Sunday, some four days, I ordered a full dose of castor oil, with directions to give an injection in three hours if the oil had not operated. Thursday, June 28, the patient moderately comfortable, but there had been no operation in the bowels after the oil and injection of the previous day. Fearing, from the symptoms and the previous history of the case. the possibility of malignant disease, I advised a consultation, and met Dr. Aikins on the same afternoon. After a very careful inquiry into the history of the case and a study of the symptoms as they then presented themselves, it was deemed advisable to persevere in our efforts to move the bowels; and accordingly two ounces of castor oil were ordered, but without producing the slightest effect. I then determined not to push the effort to evacuate the bowels any further for the time being, as each successive attempt only seemed to aggravate the sufferings of the patient. I, therefore, ordered the following pill:

℞ Hydrarg. c Creta ..... gr. i.
Ext. Hyoscyam..... gr. iiss.
Ext. Nuc. Vom ..... gr. ¼.
Morph. Sulph ..... gr. $\frac{1}{12}$

One pill every four hours.

On the following day I found the patient much more comfortable—ordered the same treatment to be continued.

Sunday, July 1st.—Patient still very comfortable. I thought it but right, however, to make another attempt at evacuating the bowels, and so ordered a two ounce dose of castor oil again, with instructions to follow it up in three hours by an injection of soap suds with an ounce of turpentine.

Monday, July 2nd.—Found my patient very uncomfortable. The renewed attempt at procuring a motion from the bowels had no other effect than that of increasing the uneasiness of the patient. Dr. Aikins again saw the patient with me, and we decided upon still further pushing the effort to move the bowels. The tympanitis, only slight at first, had increased so much as to be a source of considerable distress to the patient. Repeated the same dose of castor oil, adding half an ounce of spirits of turpentine, and following it with another injection of soap suds and turpentine. In using the injection on this occasion, I introduced an ordinary stomach tube into the rectum and passed it up about nine inches, so as to apply the force of the injection as near to the point of obstruction as possible, if such there was. The only result of this effort was the almost immediate escape of the injection with a small amount of mucous and blood, and a number of pieces of white cheesy-looking matter, having the appearance somewhat of curdled milk. In the evening the injection was repeated, and with a like result.

On the following day a consultation was called with Dr. H. H. Wright. We were still hopeful, after a careful inquiry into all the symptoms past and present, that the case was only one of obstinate constipation resulting in paralysis of the bowels, and determined to direct the treatment with a view to overcoming this condition. We ordered the following prescription:

℞ Ext. Ergotæ ..... ʒiij.
Ext. Belladon ..... ʒss.
Liquor Strychniæ ..... ʒi.
Aquæ ad ..... ʒiv.

M.

A tablespoonful every four hours.

This mixture, ordered on July 3rd, was continued until the 8th, and with no other result than that of soothing the patient's pain.

We then resolved to try the effect of small doses of turpentine frequently repeated, and ordered the following mixture :

℞ Morph. Sulph ..... gr.ii.
Liquor Ergot.....
Spt. Terebinth āā..... ʒiv.
Syrup Acaciæ ad ..... ʒiv.
M.
A tablespoonful every three or four hours.

This mixture was very well borne and had the effect of soothing pain and controlling to some slight extent the tympanites which had by this time assumed somewhat alarming proportions. Otherwise there was no favourable change.

We again tried the effect of a large dose of turpentine and castor oil, followed by injections carefully administered, but with no better success. The condition of the patient had now become so alarming from the excessive tympanitis which had supervened despite every effort to control it that we discussed the propriety of introducing the hand into the rectum and reaching the point of obstruction if possible. It was agreed that this was the only hope of obtaining relief for the patient; and accordingly on the 14th, after apprising the patient of the nature of the case and obtaining her consent to the operation, it was performed under the influence of chloroform. On introducing the hand and passing it up to the sigmoid flexure, a tumour of firm consistency and about the size of a turkey's egg was discovered in that region. It seemed to so completely obstruct the passage, that any effort to overcome it was entirely unavailing. The patient sank steadily and died within forty-eight hours after the operation.

I obtained the consent of the husband and friends to make a *post-mortem* examination, of which the following is the result. On opening the cavity of the abdomen we found the tumour before observed at the junction of the sigmoid flexure of the colon with the rectum. Its removal and examination disclosed the following conditions. The growth seemed to have originated in the mucous membrane of one side of the bowel and to have gradually increased in size until it reached the opposite side where it had formed adhesions and completely occluded the passage. Dr. Zimmerman kindly submitted portions of the tumour to microscopical examination and discovered it to be what is recognized as adenoid cancer.

This case was remarkable for its obscurity. The patient's age did not justify very strongly the opinion that malignant disease existed. Statistics show that only a comparatively small number are the victims of the disease at this age. There was absolutely none of the cachectic expression commonly observed in such cases. The temperature never was above the normal. The pulse was alike natural until within a few days of death. The character of the discharges rather indicated chronic ulceration of the bowels resulting in gradual occlusion. But the ulceration, as the sequel demonstrated, was only a result of previous malignant disease.

We are reminded by the results of this case, how invaluable are *post-mortem* examinations. Without such an examination in this instance we would not have been justified in pronouncing malignant disease as the cause of death, as there were really none of the prominet symptoms present except pain in the region of the complication, and this might have been very properly accounted for as an effect of the ulceration present.

We are only confirmed in the opinion, often before expressed, that professional men cannot be too urgent in their desire to pursue the investigation of every obscure case to the utmost possible limit. It is only by such means that additional light can be thrown upon the varied manifestations of disease in the human system.

Colonial Degrees.—The *London Gazette* of the 24th August contains an official notification to the effect that Her Majesty has granted letters patent declaring that the decrees of Bachelor and Doctor of Laws and of Medicine hereafter to be granted or conferred by the University of the Cape of Good Hope shall be recognized as academic distinctions and rewards of merit, and be entitled to rank, precedence, and consideration in the United Kingdom and in the colonies and possessions of the Crown throughout the world as fully as if the said degrees had been granted by any University of the said United Kingdom.—*London Lancet.*

Translations.

From *Lyon Medical.*

Treatment of the Albuminuria of Pregnancy by Jaborandi.

Dr. Langlet (of Rheims) successfully employed jaborandi in a case in which the rapid course of the symptoms did not seem to allow time to have recourse to the milk diet, which has been so successful in the albuminuria of pregnancy. In this case, reported by the author in *L'Union Medicale de l'Est*, a woman three months advanced in pregnancy had presented oedema of the legs for six weeks. For some days she had been subject to an oppression so violent as to place her life in jeopardy; the quantity of urine, excessively small and highly charged with albumen, was in no way affected by the ordinary diuretics; the symptoms which precede or accompany eclampsia were already present, and the question of the induction of abortion had been broached. It was at this juncture that three grammes (45 grains) of jaborandi leaves in infusion were administered; the same day an abundant salivation was produced; the diaphoresis was insignificant, but instead there was an augmentation in the quantity of the urine voided—a quantity which became quite considerable during the following days. The patient thus took the jaborandi for sixteen days without interruption, and in this space of time resorption was gradually accomplished, the liquid effused into the pleuræ disappeared, and all the general symptoms amended. The albumen also progressively decreased, so that at length there was no longer the slightest trace of it in the urine, and the accouchment was accomplished under excellent conditions, the child being healthy. M. Langlet supplemented this observation with some interesting reflections. In the first place, in this case, the jaborandi was given in a continuous way, whilst ordinarily it is given for periods, more or less separated from each other, lasting two or three days each. In this case M. Langlet acted as he did because he desired to procure a continuous action of the remedy. This method of administration has had one drawback, which is that it produced a veritable hæmaturia, the result of the excess of work thrown upon the kidneys, and of the congestion which accompanies it. This hæmaturia, however, has had no untoward results, but it probably might have been avoided by giving the remedy at intervals. M. Langlet also remarked that increase of the urinary secretion is not usually noted among the effects of jaborandi, although M. Rendu had previously remarked it. It is the sweat, and more especially the saliva, whose secretion is excited by the remedy.—*Journal de Medecine et de Chirurgie Pratique.*

From *Lo Sperimentale.*

Podophyllin in the Treatment of Diabetic Constipation and Hæmorrhoids.

BY DR. ROUSOCLET.

The author published in the *Gazzetta Degli Ospedali* an article on the treatment of habitual constipation by podophyllin. He insists that the treatment is generally pursued for too short a time. He states that two or three months are required, according to the duration of the constipation, in order to contract a regular and lasting habit; and also that it is necessary, in order to facilitate the digestion, to visit the privy every day at the same hour. He commences at first with a pill of one centigramme (about $\frac{1}{10}\frac{5}{0}$ths of a grain), increasing the amount by one pill until an effect is produced, and he limits this to fifteen days. Then he gives it only every second day; a week later every third day, and so on, adding a day for every week. If any irregularity occur he begins again with the daily dose and decreases as before. For the administration he prefers to the hour of bedtime, which has been recommended, that of the last meal, when he gives it with the first spoonful of soup. He also recommends persons who are in the habit of taking an early breakfast in the morning not to visit the privy until after they have taken this meal, which is, according to him, an excellent way of establishing and maintaining the habit. Dr. Riviere also recommends this remedy in the treatment of hæmorrhoids, not only in persons in whom this inconvenience is transient and unattended with serious consequences, but also in patients afflicted with per-

manent hæmorrhoids, and who are compelled, sooner or later, to have recourse to some radical treatment. Dr. Riviere gives one or two pills, of a centigramme each, so as to simply soften the fecal bolus. In cases of permanent hæmorrhoids it is necessary to repeat the dose daily. Nevertheless the author has seen patients suspend the treatment after one or two months and enjoy a long respite; in some cases, also, it has happened that they complained no more.

Paralytic Luxations (so-called Congenital) of the Femur.

The following is a *resume* of the conclusions of M. Rechis in a paper communicated to the French Association for the Advancement of Science :—

1. From the class of luxations called congenital we must now separate paralytic cases.

2. These luxations follow amyotrophies, and can, like the affections giving rise to them, occur at all ages, although seldom observed except in the young.

3. For these luxations to occur two conditions are necessary,—1st, Paralysis of a group of muscles; 2nd, The integrity of its antagonistic group.

When all the muscles moving the articulation are paralysed there is great laxity, but no luxation.

4. In the hip, iliac luxations are the most frequent, and are due to paralysis of the gluteal and external rotator muscles, and to the functional integrity of the adductors.

Catgut to Arrest Hæmorrhage from Bones.

Dr. Riedingen, in *Centrallb. f. Chirurg.*, relates a case of hæmorrhage from the nutrient artery of the tibia arrested by the insertion of catgut thread to fill the nutrient foramen. The bleeding ceased immediately, and union by the first intention ensued. Digital pressure had been tried for a long time and failed. Subsequent experiments on dogs, by insertion of catgut in the medullary canal and closing the wound, proved that healing readily takes place and the catgut is absorbed.

From *Rivista Clinica di Bologna.*

Chlorate of Potash in Pulmonary Phthisis.

Dr. Kend Sender asserts that chlorate of potash has a most important influence upon pulmonary phthisis. This action was discovered and put to the proof in America, where it has been administered to phthisical patients in the enormous dose of 15 to 30 grammes (225—450 grains) per day. Dr. Lyncouds considers this medicine as one of those which are of eminent value in consumptive cases. Dr. Hobert has employed it, not only in diseases of the chest of chronic course, but also during the decline of acute affections, such as bronchitis, catarrh, and pneumonitis. Dr. Kead administers it in doses of 25 to 30 centigrammes ($3\frac{3}{4}$ to $4\frac{1}{2}$ grains) per day, and, if he find the pulse accelerated, he never exceeds three grammes (45 grains) per day. The chlorate of potash is a substance which gives up its oxygen to the tissues with which it comes in contact, and to the organisms in general into which it is absorbed. It is most useful in laryngeal phthisis, in which small doses are sufficient; but, if the bronchi and the pulmonary cells be affected, the larger doses become necessary. Association with a narcotic assists the action of the remedy, and, amongst the narcotics, the author prefers codeine. Chlorate of potash is an oxygenator of the blood, and makes its influence felt even upon the venous blood.

An Extraordinary Case.

In the *Revue de Ther. Med. Chir.* a case is reported which, from the symptoms, no physician would have hesitated to diagnose *typhoid fever.* The patient, after five days' illness, was admitted into the Charity Hospital of Paris under M. Hardy, and was under his treatment for 18 days. The symptoms were,—*stupor, delirium;* the *abdomen* was *distended;* there was *gurgling in the right iliac fossa; diarrhœa, with stools of a brown colour, tongue dry and fuliginous; sordes about the nostrils; exanthematic spots on the abdomen; mucous rales* over the whole extent of the lungs; thermometric variations in the two first weeks, followed soon by the variations characteristic of the second

stage of the disease; one or two attacks of *epistaxis*.

The autopsy revealed an error in diagnosis, which the most skilled clinical observer could not have avoided. *Tubercular granulations were found on the surface and in the interior of all the organs*, without exception. The pleuræ were covered and the lungs stuffed with them. *The spleen* was three times the normal size, full of granulations on the surface and in the interior. The liver diaphragm and the meninges were in the same condition. M. Hardy expected at least to find in the intestine some signs of typhoid fever having been present along with the tuberculosis. There was no trace of intestinal ulceration. Only some scattered granulations were found on the mucous membrane. The swollen bronchial and mesenteric glands showed tubercular granulations in spots. It would be impossible to see organs more stuffed with tubercle. They were literally infiltrated. In this case, so full of interest, the phenomena of congestion due to tubercle were confounded with those of febrile congestion. In fact, it was a case typical of sub-acute tuberculosis. There was nothing present to cause one to doubt that it was a well-marked case of typhoid fever. It is impossible to say how, in such a case, we can avoid an error in diagnosis. *Experientia fallax; judicium difficile.—L'Union Medicale du Canada.*

From *Rivista Clinica di Bologna.*

Chloral in Simple Wounds.

Under its influence these take on a healthy aspect, and redundant fleshy granulations secrete a pus of laudable character. Erasmo Paoli, Cusco, Panas, and Lucas daily employ it with very great success as the only topical application to simple wounds. *In atonic ulcers* it is a detersive, but in these, as in simple wounds, it is convenient to use it in solution of 1 in 100. Dr. Lucas treats old varicose ulcers in no other way. Dr. Vallin, of Val-de-Grace, likewise employs it in the cure of the atonic ulcers which are so often met with in sailors and soldiers in warm countries. His formula is the following:—Hydrate of chloral, 1 gramme; glycerine, 30 grammes; water, 50 grammes.

From *Lyon Medical.*

Treatment of the Dyspepsia of the Newly Born.

M. J. Simon describes the dyspepsia of infants at the breast—a dyspepsia which may be either stomachal or intestinal. After insisting upon the qualities that the milk of a good nurse should possess, M. Jules Simon recommends, in case of constipation, a half teaspoonful of calcined magnesia. "I much prefer," says M. Jules Simon, "the calcined magnesia of Henry to all other magnesias; and even to all other laxatives, syrup of chicory, oil of sweet almonds, manna, calomel, &c. To all the other magnesias, because it alone determines certain results without griping; and to all other laxatives, for the reason that the syrup of chicory by itself is not always efficacious, and that associated with the syrup of rhubarb it provokes rather violent griping. As for calomel, I do not approve of its daily employment according to the English practice; lastly, manna and oil of sweet almonds, pure or mixed with some drops of castor oil, are often very badly digested, and give rise to veritable dyspepsias. It is then to calcined magnesia that I advise you to have recourse, and especially to Henry's magnesia, which is one of incontestable superiority, as competent chemists have pronounced it. It is heavier under unity of volume; it is suspended in water as an impalpable powder, and, an undeniable advantage, its action is never at fault.

"Once having fixed upon the dose necessary for each infant, you will be able, with all confidence, to leave to the nurse the care of giving this always harmless remedy as soon as the stools become mealy and infrequent. As a matter of course you should at the same time recommend daily baths, and simple or emollient clysters, containing a tablespoonful of oil of sweet almonds or of glycerine.

"In case of hepatic congestion it is necessary to discontinue the baths and give an emetic (syrup of ipecac); as for nervous phenomena, they should be combatted with cherrylaurel water (10 grammes) or with a draught containing 5 grammes of syrup of codeia.

"Cutaneous eruptions will be relieved by

daily baths in an infusion of walnut leaves, or of tepid water charged with a dessertspoonful, per glass, of the following glycerole: borax, 4 grammes; glycerine, 40 grammes. Afterwards, dust the parts over with powdered talc."

Finally, for diarrhœa, M. Jules Simon recommends the following draught:

Laudanum (of Sydenham)	1 drop.
Subnitrate of Bismuth.....	4 grammes.
Lime water	10 grammes.
Mucilage	100 grammes.
Syrup.....	20 grammes.

Rivista Clinica di Bologna.

Bromine.

As the croupous membrane is dissolved in a solution of bromine and bromide of potassium more rapidly and readily than in any other substance used in the treatment of diphtheria, therefore Schultz uses bromine by inhalation in diphtheritic and croupy processes. He employs a solution of pure bromine and bromide of potassium (aa grammes 0,30 = 4½ grains) in 150 grammes of distilled water. Into this solution he dips a sponge, which, enclosed in a paper funnel, he applies to the nose and mouth, as in chloroform inhalation. He repeats the inhalation, which lasts five or ten minutes every half hour. The odour of the bromine is sufficiently well tolerated, even by children, when carefully diluted. The preparation must be kept well stoppered and in the dark, on account of its volatility and its being altered by the light. (Dr. Ozanam, in the *Gazzette des Hopitaux*, about the end of the year 1859, made known the benefits obtained from bromine in croup, and recommended its use in the following manner: Bromide of potash and pure bromine, each 10 centigrammes. Distilled water 100 grammes (or 1 in 1,000)—mix. It forms an amber, coloured liquid, and he gives it in a mucilaginous vehicle in from 1 to 5 drops up to 30 in the day according to the degree of tolerance. This dose he gives as a curative agent; as a preservative, 3 to 6 drops per day. and as a disinfectant in case of epidemics in the manner following: Pure bromine, 2-5 drops. Pour into a little dish with common water, and keep in the room, removing it at night, because in a closed room it may become offensive or injurious. This was Ozanam's method—a method which Schultz to-day seeks to revive as his own, but which the lapse of 18 years has not sufficed for the present reviewer to forget.)

From *Lyon Medical.*

Good Effects of Arsenic in Albuminuria.

Semmola, according to Prof. Jaccoud, recommends the employment of granules of arsenious acid in the treatment of Bright's disease, at the time at which we commence to give meat to the patient after the milk diet. According to M. Jaccoud's own observations, the absorption of albuminoids is promoted by this remedy. The researches of Lauder Brunton seem to confirm this view. This author, in fact, found that in certain cases the absorption of albuminoid matters by the intestine is a cause of albuminuria, of intermittent form, and in relation with digestion; that in this case the utility of arsenic is demonstrated, that that of pancreatine is probable; and lastly, that quinine increases the proportion of albumen voided.—From *Bulletin de Therap.*

From *La France Medicale.*

On account of an article which appeared in the "*Annee Medicale*" on the *Formation of corrosive sublimate in a mixture of calomel and sugar*, taken from *Osservatore Medical Siciliano* (Nos. 1 and 2, 1877), M. Jolly, of Paris, undertook a series of experiments to investigate the matter, and found that certain physical agents, such as heat and light, and certain chemical agents, alkalies and acids, did decompose the salt with the production of corrosive sublimate.

"It results from these experiments (we quote M. Jolly's article in *La France Medicale*) that the alkalies or their carbonates act energetically upon calomel, determining the formation of a notable quantity of corrosive sublimate. The earthy bases, lime and magnesia, exercise a similar but weaker action: the action is promoted by the presence of water. We have analysed several samples of calomel pastilles prepared some months ago; in some of these pastilles we found a trace of the sublimate. These results, it will be seen, are not in accord with those of the Italian *savants*, but the disaccord is perhaps more apparent than real.

"The fact is, in Paris only the refined sugars are employed, and these are pure and neutral; whilst in certain localities, chiefly in the neigh-

bourhood of sugar factories, they employ, sometimes even in pharmacy as well as for other domestic uses, the sugar of the first crystallization called *sucres bruts* (native sugar.) These sugars are very white, but they always contain a variable quantity of hydrate of lime, left intentionally by the manufacturer so as to prevent, as far as possible the formation of *sucre interverti*. The 'native sugar' of the colonies is, on the contrary, always acid. The foregoing experiments enable us to foresee that if calomel and 'native sugar' be mixed, the alkali or acid which it contains would suffice to form a certain quantity of the sublimate. It is not then the sugar which acts, but the impurities which it contains. The deductions from this work are: that in medical practice we should abstain from mixing calomel with acids, alkalies, "native sugars," etc."

From *La Andalucia Medica.*

Treatment of Certain Forms of Diarrhœa by the Chlorate of Potash.

Dr. Vonfigli employs this remedy in the diarrhœas which occur chiefly in cachectic patients affected with nervous disorders, and which consist in very frequent serous evacuations; these diarrhœas, which, according to the author, are vasoparalytic, are proof against astringents and narcotics, and are the prodromes of death in cachectic foreigners. Sases's experiments have shown that the chlorate of potash increases the contractility of the muscular walls of the vessels, and it was on this account that Dr. Vonfigli tried the remedy, and it has given him favourable results in this affection: in order, however, to secure a complete disappearance of these attacks it is necessary to employ the medicine during a long period, and in obstinate cases to increase the dose. If the treatment be suspended all the good effects disappear unless the general condition have been improved. The dose varies from 2 to 10 grammes (30-150 grains) in the 24 hours according to the gravity of the case; from analogy the author supposes that the chlorate of potash ought to exercise a beneficial effect upon the diarrhœas of the aged, in cholera, and certain serous fluxes of hot countries.

From *La France Medicale.*

On the Indications for Thoracentesis.

At the late meeting of the *Association Francaise pour l'Avancement des Sciences* at Havre, M. Potain read a paper. In mentioning the indications for thoracentesis, abundance of liquid effusion, age and nature of the effusion, and the circulatory difficulty to which it gives rise, he insisted particularly upon the diagnosis of the abundance of the effusion, and upon the difficulty imported into the diagnosis by pulmonary hyperæmia.

The difficulties of diagnosis relative to the abundance of fluid effused depend chiefly upon the variable degrees of compression of the lung, and upon the adhesions to the chest-wall which it has been able to form. When these adhesions are partial they play only a small part and do not prevent the lung from retreating from the thoracic wall and being crowded up by the liquid. But pulmonary congestion, when it exists in a pronounced degree, diminishes the retractility of the lung, which remains voluminous and sunk in the liquid, and thus is produced an elevation of the level of effusion which leads one to believe it to be much more abundant than it really is.

M. Potain thinks that the most certain signs of pulmonary congestion, associated with effusion, consist in the considerable extent of the souffle, and in the persistence of thoracic vibrations much below the level of the liquid. It is to the pulmonary congestion that we must attribute the pleural crepitation. M. Potain thinks that this crepitation is absolutely distinct from pleural friction; it is fine, dry, and limited to inspiration; if it were due to pleural friction it ought to be heard at both times.

The total extraction of the liquid constituting a favourable condition for the production of the pulmonary congestion, so often seen after thoracentesis, it is necessary to be careful to extract only a part of the fluid effused, and for this purpose to possess as precise indications as possible as to the degree of evacuation of the pleura from time to time during the operation. With this object, M. Potain fits on to the tube of the aspirator a little manometer, which indicates, each time that its cavity is brought into connection with the pleural cavity, the different degrees of thoracic aspiration, which increases proportionately to the removal of the fluid. When this pleural aspiration is seen suddenly to increase he stops the flow of the effusion.

From *L'Union Medicale.*

At the session of the *Academie de Medecine*, on the 11th Sept., Dr. Laborde read a paper upon "*The Physiological Action of Salicylate of Soda and the Mechanism of its Action.*" M. Laborde thinks that he may deduce from his experiments the following conclusions :—

The physiological action of the salicylate of soda is predominantly *elective*, over the phenomena of sensibility to pain, or *consciousness*. The mechanism of this action resides in the influence exercised by its chemical properties, not upon the conductive power of the sensory nervous filament, but upon the centre of reception and elaboration of peripheral impressions. This action of the salicylate of soda upon the functional phenomena of sensibility, and consequently upon the organic cerebral seat of these phenomena, explains the effects produced upon painful symptoms in the morbid state; and it is principally, and perhaps exclusively, by virtue of this analgesic property that salicylic acid operates in the cure of articular rheumatism. The experimental researches which served as the basis of this paper were made in the laboratory of Prof. Beclard.—*Com. MM. See, Gueneau de Mussy, Vulpian.*

At the same meeting "M. Jules Guerin exhibited to the *Academie* a number of pathological specimens and photographs, showing the series of intestinal lesions observed in typhoid fever.

"M. J. Guerin said that these preparations and drawing showed the characters of the typhic intestinal lesions in their relation to the etiology which he had pointed out; that is to say, that these changes are subordinate (or due) to the vesicating and destructive action of the fecal matters in contact with the intestinal mucus, and that they are in some way proportionate to the quantity, the quality, and, so to speak, the age of the typhic ferment."

From *L'Union Medicale.*

Treatment of Puerperal Metrorrhagia.

In case of uterine hæmorrhage occurring after delivery, Dr. Donovan employs successfully the tincture of Cannabis Indica, in the dose of 1 gramme and 20 centigrammes. The action of this remedy is rapid and certain, even when the ergot of rye has failed. The tincture of Indian hemp is equally efficacious against metrorrhagias in general, and superabundant menstrual fluxes in particular.

Formularies.

Freckles, and how to treat them.—Many remedial preparations of a more complicated character have been recommended, of which New Remedies gives the following :

℞ Zinci sulpho-carbol.....	2	parts ;
Glycerine	25	"
Aq. rosæ.....	25	"
Spiritus vini rect	5	"

Dissolve and mix. The freckled skin is to be anointed with this twice daily, the ointment being allowed to stay on from one-half to one hour, and then washed off with cold water. Anæmic persons should also take a mild ferruginous tonic. In the sunlight a dark veil should be worn.

A French journal recommends a collodion containing ten per cent. of its weight of sulpho-carbolate of zinc, as giving excellent results. The solutions of corrosive sublimate and other mercurial salts, often used for the purpose, are more or less dangerous, and should be avoided. The following lotion, which contains only a minute proportion of mercury, is harmless and well recommended :

℞ Hydrarg. perchlor	gr. v ;
Acid hydrochlor	gtt. xxx.
Sacch. alb.....	℥j ;
Spt. vin. rect.....	℥ ij ;
Aquæ rosæ	℥ vij.

The following formula is also highly recommended :

℞ Sulpho-carbolate of zinc...	1 part ;
Collodion.....	45 parts ;
Oil of lemon	1 part ;
Absolute alcohol.....	5 parts.

The sulpho-carbolate of zinc should be reduced to an extremely fine powder, and should then be thoroughly incorporated with the fluid mixture.

Here is another, in which white mustard-seed and lemon juice are the chief ingredients :

℞ Pulv. sinapis alb.....	℥ iij ;
Olei amygdal	℥ ss.

Succi limonum, enough to make a thick paste.

Mix. To be applied as an ointment.

It is also said that powdered nitre moistened with water, and applied night and morning, will soon remove all traces of freckles. An old-fashioned household prescription is sour milk or buttermilk, which may sometimes answer the purpose.

THE CANADIAN

Journal of Medical Science,

A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor*

TORONTO, NOVEMBER, 1877.

IMPORTANT.—Accounts have been mailed to all subscribers in arrears. We hope they will be promptly attended to. A reference to the date attached to the address of each journal will at once inform anyone when his subscription became due.

A GROWING NUISANCE.—We have to thank the *American Practitioner* for enlightenment on the please-send-me-a-specimen-copy-of-your-valuable-journal-man. We, too, have never seen the colour of this man's money for a specimen, and never received an order for continuance of the paper. We shall see that no more copies are sent gratis, and we think that if all journals will do likewise and notice the nuisance, it will cease at once.

OBITUARY.—We regret to have to record the death of Dr. Cline, House Surgeon of the Montreal General Hospital. While attending some cases of diphtheria, Dr. Cline contracted the disease, which proved fatal in a few days. The profession in Montreal have lost an esteemed and talented *confrere*.

CORRECTION.—In our October number, in calling attention to the "Physicians' Day-Book, Journal, and Ledger," advertised in another column, we erroneously gave the address of the Henry Bill Publishing Company. It should have been Norwich, Connecticut, U.S.

WM. WARNER & CO.—This celebrated Philadelphia firm of wholesale druggists and manufacturing chemists received the first prize at the International Exhibition of 1876 for their sugar-coated pills, which were certified by the judges as being soluble, reliable, and unsurpassed in the perfection of sugar-coating, thorough composition, and accurate subdivision. They may be relied upon for pure chemical and pharmaceutical preparations. They are specially commended for phosphorus pills. Their advertisement circular will be found in another column.

TORONTO SCHOOL OF MEDICINE.—The annual dinner of the Toronto School of Medicine takes place at the Rossin House, on Friday evening, November 9th. Graduates desiring tickets can obtain them from Mr. Franklin Burt, Secretary of the Dinner Committee. Many ought to be glad to avail themselves of this opportunity of renewing old associations.

We are glad to call attention to the advertisement relating to the transactions of the Canadian Medical Association. The Committee have worked admirably, and we hope will find their reward in a large list of subscribers. The volume will be well worth having.

GEO. H. SCHAFER & CO.—We have used some of the preparations of this firm of manufacturing pharmacists, and are pleased with their effects. Their fluid extract of ergot we can specially commend. Galenical preparations they make a specialty.

WORCESTER'S DICTIONARY.—In our advertising columns Messrs. J. B. Lippincott & Co., of Philadelphia, offer Worcester's Standard Dictionary, unabridged, for the low price of ten dollars. As a standard work of reference its authority is *unimpeachable*.

We desire to call the attention of the profession to the advertisement of Mr. Arnold, surgical instrument maker. His address is 119 Dalhousie Street, Toronto.

BOOKS AND PAMPHLETS RECEIVED.

Outlines of Modern Chemistry,—Organic, based in part upon Riches' Manuel de Chemie. By C. Gilbert Wheeler, Professor of Chemistry in the University of Chicago. N. S. Barnes & Co., New York and Chicago. 1877.

This is a very readable account, in a small space, of the general principles of the chemistry of the organic compounds. The author has not attempted to give us an exhaustive treatise on the subject, but one that will be of practical use to students who have mastered the subjects of inorganic chemistry and chemical physics. The book is well got up in paper, press work and binding.

Physicians' Vade Mecum and Visiting List; arranged and prepared by H. C. Wood, M.D. Philadelphia: J. B. Lippincott & Co.

This is a new and convenient visiting list, holding much useful information in a small compass. It contains articles on Poisons and their Antidotes, a Posological Table, the Metric System, Diagrams of the motor points of the muscles for those using electricity, &c. We have seen no better visiting list.

Sycosis: Prize Essay for 1877 *of the Bellevue Hospital Medical College Alumni Association.* By A. R. Robinson, M.B., L.R.C.P. & S., Edin.

Retarded Dilatation of the Os Uteri in Labour. By Albert H. Smith, M.D., Phila.

APPOINTMENTS.

Horace P. Yeomans, of the Village of Mount Forest, Esquire, M. D., to be an Associate Coroner in and for the County of Wellington.

Thomas Smith Walton, of the Village of Parry Sound, Esquire, M. D., to be an Associate Coroner in and for the District of Parry Sound.

Sclerotic acid, the active principle of ergot, isolated by Dr. Dragendorff, appears in the American prices current at £5 per ounce. It is administered hypodermically in doses of $\frac{1}{16}$th to $\frac{1}{12}$th of a grain.

Miscellaneous.

Embalming.—Dr. Lowell, of this city, has devised a process of embalming bodies which bids fair to revolutionize the business of undertaking. If his plan shall be adopted and succeed, the use of the ice-box and other expensive appliances, generally in request for the preservation of cadavers by the agency of cold, will become entirely unnecessary, and will be succeeded by an inexpensive and simple process, which we will briefly indicate as follows: A solution of chloride of zinc is the preservative fluid used; this is contained in a porcelain-lined vessel, which is elevated to a convenient height, so that the contents will be injected into the cadaver after the manner of a gravity-syringe. For the passage of the fluid from its receptacle into a vein of the cadaver, glass and rubber-tubing are all that is required. A finely-tapered glass tube is held tightly in place in the vein, while a glass U-shaped tube acts as a siphon to conduct fluid from the receptacle. The quantity of fluid will, of necessity, vary in different cases; four or five gallons may be required. This plan will not work when operations have been performed whereby large vessels have been opened. A body thus treated was transported from this city to Richmond, Va., this summer, without odour, and without disfigurement or any external signs of decay. All that is required is that the physician shall expose a vessel, adjust the glass tube, and the fluid will find its own way. Dr. Lowell has let the instrument run all night. There is promise in this of a saving to the city of Brooklyn alone of from $75,000 to $100,000 each year in the one item of ice, in addition to doing away with much unpleasant and cumbersome material in caring for the dead. Dr. Lowell writes: "The injection may be made by either artery or vein. I have tried both with success. I prefer the brachial artery above the elbow as the point for introduction of glass tube, for the primary incision is slighter, and, consequently, divides smaller and fewer veins than when I expose the femoral artery. I use the gravity method, and introduce about five gallons of the antiseptic fluid. The effects are eminently satisfactory. The colour of the in-

tegument is improved, even at points where hypostasis has been at work. I inspected a cadaver night before last—a lady. The body was in splendid condition—skin white and clear, and all points of discoloration along spine, nates, posterior surface of thighs, neck, etc., etc., clearing up. The patient died of typhoid fever; *post-mortem* discoloration rapidly supervened, and decomposition was rife. All changes were arrested, the skin cleared up, and when I saw the body last its appearance had improved wonderfully. I am constructing an apparatus on an improved plan for the work of injection, and will, in a few days, have it out." Dr. Lowell will shortly be ready to work his new appliance, and offers to inject any body submitted to him by the profession. He thinks this method will give better satisfaction than icing remains, and will certainly be antiseptic. He is ready to use and apply it where the undertaker has hitherto applied ice.—*Proceedinys, Brooklyn.*

Immediate Cure for Piles.—The operation is simply this. The piles being well down, they are punctured with the conical pointed end (which I have had made by Messrs. Mayer and Meltzer to fit on to Dr. Paquelin's gas cautery) to their bases, the number of these hot punctures varying with the number and size of the piles, a pile of the size of half a small walnut requiring two or three. A dull-red heat should be used, and the point gently rotated while being extracted, and not pulled out, because if this be done a portion of the eschar will be withdrawn with the instrument, and some hæmmorhage will follow. Should the disease be of old date, some of the piles will be quite hard; these I have pierced to their softer attachment, at the feeding veins of which they were clot-laminated, and even had fibrous varicose transformations. Ulcers and fissures in connection with the hæmorrhoids were touched with the cautery.

If this simple plan be properly followed, there is no hæmorrhage, but should there be slight oozing, a touch of the cautery at once stops it; the piles are then returned, and a half-grain morphia suppository introduced. The bowels are kept confined by a quarter of a grain of morphia daily, by mouth or subcutaneously, for the first two or three days, and on the fourth or fifth day an enema-tube is gently introduced and a warm injection given and followed on the succeeding day by a laxative. The first two, or in some cases three, motions produce pain, but nothing as compared with that the patients suffered before the operation; and at the expiration of a week they are discharged, with such directions as to diet and regimen, that will promote the healthy function of the rectum, and which are known to all professional men.—*Dr. H. A. Reeves, in London Lancet.*

Coffee as an Antidote to Strychnia.—Dr. Attilio Lelli having met with a case in which a large dose of strychnia was administered in coffee without fatal consequences, was led to institute some experiments to determine whether it possessed an antitoxic power against this drug. The animals employed were rabbits, and by comparative trials he found that a does of five centigrammes proved fatal in a short space of time; when the same or a larger dose was given in a very strong infusion of coffee, he found that the coffee either acted as a complete antidote in preventing the poisonous effects of the strychnia, or that it materially diminished the violence of its action. The details of the experiments are given in the *Rivista Sperimentale di Freniatria*, edited by Prof. Carlo Livi, of which the first Fasciculus of the third volume has just been issued.—*London Lancet.*

Spores. — In microscopical examinations, spores may be confounded with fat globules, blood disks, nuclei of epithelium cells, pus globules, etc. The diagnosis can be absolutely determined only by the use of reagents. Spores are unaffected by ether, chloroform and alcohol. These dissolve fat cells and render epithelium transparent. Ammonia makes spores a little more colourless. It dissolves pus, and secretions of eruptive diseases, making a gelatinous mass. Hot solution of potash with alcohol dissolves impetiginous crusts, fat, pus, hair and epithelium. Acids destroy earthy particles.—*Medical and Surgical Reporter.*

Dr. Matthews Duncan.—It is now, we understand, definitely settled that Dr. Matthews Duncan will leave Edinburgh and settle in London, having been elected to the office of Obstetric Physician at St. Bartholomew's Hospital, on the resignation of Dr. Greenhalgh. There is in all circles in Edinburgh a general feeling of regret at losing one who has for long held a leading position in the medical profession there, and whose advice on matters of public business was much sought and highly valued, as being that of a clear-headed, thorough-going, and independent man.

In Anal Fissure.—Trousseau recommended both the tincture and extract of rhatanny in fissure of the anus, a drachm of each in five ounces of water, by enema. In prescribing the remedies glycerine will be found a convenient excipient; as,

℞ Tinct. krameriæ..... ℥j;
Ext. krameriæ ..... ℥j;
Glycerinæ ..... ℥iij. M.

S. A tablespoonful in a tumblerful of water by injection.

Mixture for Migraine (Megrim).—Delioux.

Squeeze the juice of one lemon into a cup of black coffee and drink at once, to allay the hemicrania in its course, or to dissipate it at its inception. Perhaps the citric acid acts in this case by setting free the caffeine, or by forming a salt with it. Reveil had already found that 100 grammes of lemon juice, taken in a single dose, succeeded in relieving megrim.—*L Union Medicale.*

Coated Pills.—Pills have a verbal as well as a material coating. Mr. G. H. Wright, of Southwark, writing in a recent number of the *Pharmaceutical Journal*, gives the following list of popular names for purgative pills, used in his locality: Wake-me-ups, rattlers, eye-openers, scavengers, early risers castor oil pills, excavators, five o'clockers, fly-away jacks, and imperial pills.—*British Medical Journal.*

Dr. Cleland, of Galway, has been appointed to the chair of anatomy in Glasgow University.

Treatment of Gonorrhœal Orchitis by Iodoform Ointment.

Dr. Julian Alvarez, of Palma, gives the following as his conclusions.—1. Iodoform, better than any other agent, eases the pain of orchitis: this result is reached in two hours. 2. Iodoform has a very marked resolvent action, and has the advantage over mercury that it is not apt to salivate. 3. Iodoform notably shortens the duration of orchitis, and hinders the subsequent induration. 4. An ointment of the strength of from fifteen to thirty grains of iodoform to an ounce of lard should be used.—*Le Bordeaux Medical.*

Tincture of Nux Vomica for Vomiting of Pregnancy.—Dr. Q. C. Smith, of Cloverdale, Cal., in the *Pacific Medical and Surgical Journal*, recommends the following:—℞ Tinct. Nucis Vom., Liq. Bismuth, of each half oz. M. Sig. A teaspoonful three or four times a day after each meal. He has also found granulas effervescent citrate of bismuth, pepsin, and strychnia useful.

The Queen has made a donation of £250 to the Red Cross Society's funds for the relief of sick and wounded of both armies in the East.

M. Gueneau de Mussy's method of administering salicylic acid is to dissolve it in a syrup of gum by the aid of ten times its weight of brandy, and adding to it a little lemon juice.

The Anæsthetic Committee appointed at the Manchester meeting of the British Medical Association have commenced their work. An interesting report may be looked for.

Prof. C. A. Wunderlich died at Leipzig, on Sept. 25th, aged 62.

Births, Marriages, and Deaths.

In Montreal, on the 3rd inst., at St. George's church, by the Very Rev. Dean Bond, Kennet W. Blackwell, of Belleville, to Fanny Coates, youngest daughter of R. T. Godfrey, M.D.

On the 16th inst., the wife of Dr. Temple, of a daughter.

In Guelph, on the 9th inst., the wife of Dr. McGregor, of a daughter.

At 25 Bay street north, Hamilton, on the 5th Oct., the wife of Charles F. A. Locke, Esq., M.D., of a daughter.

THE
Canadian Journal of Medical Science.
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U. OGDEN, M.D., *EDITOR.*

R. ZIMMERMAN, M.D., L.R.C.P., London, *107 Church Street, Toronto, Corresponding Editor.*

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TORONTO. DECEMBER, 1877.

Selections: Medicine.

PROGNOSIS AND TREATMENT OF DIPHTHERIA.

BY J. LEWIS SMITH, M.D.

Death in diphtheria may result from—

1st. Diphtheritic blood-poisoning.

2nd. Probably, also, from septic blood-poisoning produced by absorption from the under surface of the decomposing pseudo-membrane. But it is difficult to distinguish the constitutional effect of sepsis, from those produced by the diphtheritic poison. Septic poisoning is obviously most apt to occur in those cases in which the pseudo-membrane is extensive, and deeply imbedded, and its decomposition attended by an offensive effluvium. Cervical cellulitis, and adenitis, which when severe cause very considerable swelling of the neck, appear to be often, if not usually, due to septic absorption from the faucial surface, the inflammation extending from the absorbents to the glands and connective tissue. Considerable tumefaction of the neck therefore seldom occurs in diphtheria or scarlet fever, without manifest symptoms of toxæmia, and is to be regarded as a sign of its presence.

3rd. Obstructive laryngitis.

4th. Uræmia.

5th. Sudden failure of the heart's action, either from the anæmia, and general feebleness, from granulo-fatty degeneration of the muscular fibres of the heart, which is liable to occur in all infectious diseases of a malignant type, or from ante-mortem heart clots.

6th. Suddenly developed passive congestion and œdema of the lungs, probably due to feebleness of the heart's action, or to paralysis of the respiratory muscles.

That physician obviously is least apt to err in prognosis, who recognizes the fact that patients are liable to perish in any of these different ways, and carefully examines in reference to all the conditions which involve danger. Many physicians, as I have had the opportunity to observe, are remiss in not examining more frequently the urine of diphtheritic patients, for there is often a large amount of albumen in the urine in diphtheria, indicating a poisonous quantity of urea in the blood, and yet the appearance of the urine to the naked eye is probably normal.

Among the symptoms which render the prognosis unfavourable are, repugnance to food, vomiting, pallor of countenance, with progressive weakness and emaciation from the blood-poisoning; a large amount of albumen with casts in the urine, showing uræmia, to which the vomiting is sometimes, but not always, attributable; a free discharge from the nostrils, or occlusion of them by inflammatory thickening, and exudation, showing that a considerable portion of the Schneiderian membrane is involved, hæmorrhage from the nostrils or fauces, and obstructed respiration. One, at least, of these symptoms has been present in most of the fatal cases which have fallen under my observation.

Whatever the theory, experience gradually establishes the fact, in the minds of all observing physicians, that constitutional treatment is of paramount importance in diphtheria, as it is in that other malady, which, in my opinion, is most nearly akin to it, namely, scarlet fever, except when the danger is located in the larynx.

I am persuaded that, in order to secure the best treatment, constitutional and local, of diphtheria, it is necessary that the physician should accept the following propositions :—

1st. The specific principle of diphtheria, in all probability, enters the blood, in ordinary cases, through the lungs; and after an incubative period, which varies from a few hours to seven or eight days, produces the symptoms which characterize the disease.

2nd. Facts do not justify the belief that the system can be protected by antiseptic or preservative medicines administered internally. A quantity of this kind of medicine, introduced into the system, sufficient to preserve the blood and tissues from the action of the diphtheritic virus, would, there is every reason to think, be so large as to arrest molecular action, and therefore the functions of organs, and occasion death.

3rd. There is no known antidote for diphtheria, in the sense in which quinia is an antidote for malarial diseases, and no more probability that such an antidote will be discovered than for scarlet fever or typhoid fever.

4th. Diphtheria, like erysipelas, has no fixed duration. It may cease in two or three days or continue as many weeks; but the specific poison acts with more intensity in the commencement than subsequently, and its energy gradually abates. Hence, a diphtheritic inflammation, which arises in the beginning of diphtheria, as laryngitis, is more severe and dangerous than when the malady has continued a few days.

5th. The indication of treatment is to sustain the patient by the most nutritious diet, by tonics, and stimulants; and to employ other measures, general and local, as adjuvants, to meet special indications which may arise. The rules of treatment appropriate for scarlet fever, apply for the most part to diphtheria. Local treatment of the inflammations should be unirritating, and designed to prevent putrefactive changes, and septic poisoning. Irritating applications which produce pain lasting more than a few minutes, or which increase the area or degree of redness, are apt to do harm, and increase the extent and thickness of the pseudo-membrane.

General Treatment.—This may be conveniently considered under the three heads, food, stimulants, and tonics. All physicians of experience recognize the importance of the use of the most nutritious and easily digested food, and the preservation of the appetite—for the safety of the patient requires that he should retain, as far as possible, his flesh and strength. The more nutritious and easily digested the food, given in sufficient quantity, with the appetite preserved, the less, obviously, the danger of the fatal prostration, which so frequently occurs suddenly and unexpectedly in grave cases. Beef-tea, or the expressed juice of meat, milk with farinaceous food, etc., should be administered every two or three hours, or to the full extent, without overtaxing digestion. Failure of the appetite, and refusal to take food, are justly regarded as very unfavourable signs. One objection to the use of the brush, instead of spraying the fauces, with the atomizer, is that it is more apt to provoke vomiting, by which nutriment, that is so much required, is lost. In malignant cases of diphtheria, as in scarlet fever of a similar type, patients are sometimes allowed to slumber too long without nutriment. It is the slumber of toxæmia, and should be interrupted at stated times, in order to give the food.

The same rule holds true in diphtheria as in other acute infectious maladies, that while mild cases do well without alcoholic stimulants, they are required in all cases of a severe type, and should be administered in large and frequent doses, whenever pallor and loss of appetite, or of strength and flesh, indicate danger from the diphtheritic or septic infection. It matters little how the stimulant is administered, whether milk-punch or wine-whey, provided that the proper quantity is employed. Were I to accept the theory that the cause of diphtheria is a vegetable organism, and were to search for a medicinal agent, employed internally, which would be most likely to destroy it, or retard its reproduction and development, I should accept the opinion of Sanne that the alcoholic preparations more

nearly fulfil the indication than any other agent.

Of the vegetable tonics, cinchona, or its important alkaloid principle, quinia, is more commonly employed than any other medicine, and there is probably none which answers the purpose better. The compound tincture of cinchona, and the fluid extract, have been used and recommended by physicians of experience; but quinia is more commonly employed, and is regarded by a large proportion of physicians as the most useful of all therapeutic agents in the treatment of this malady. But there is great difference of opinion in regard to the quantity which is required each day, or the size and frequency of the doses. It is sometimes administered in small doses, as one grain every three or four hours, for its supposed tonic effect; and again in doses sufficiently large to produce an antipyretic effect, as from twenty to forty grains per day. It is prescribed by some physicians in two or three large doses per diem, as ten or fifteen grains, and by others in small and frequent doses. That quinia does not exert any special or peculiar action in diphtheria, and is beneficial in the same way, and no farther than in other acute infectious diseases, is, I think, generally admitted by the profession; for large doses do not exert that controlling effect which we would expect from a specific.

The internal treatment which I have found most satisfactory for a child of five years is the following:—

R. Quiniæ sulphat. ʒss; elix. adjuvantis (Caswell and Hazard's), vel elix. tarax. comp. ℥ij. Misce. Give one teaspoonful every two to four hours; and hourly, between, one teaspoonful of the following:—

R. Tinc. ferri chloridi, ʒij; potas. chlorat. ʒij; syr. simpl. ℥iv. Misce.

The tonic effect of the iron is not impaired by the chlorate of potassa, which is added to the mixture, on account of its local action on the inflamed surface.

The citrate of iron and ammonia alone, or in combination with carbonate of ammonia, may be given in two grain doses, dissolved in simple syrup, in place of the above mixture, when the inflammation of the fauces has considerably abated or is moderate. If the patient improve, and the disease begins to abate, the intervals between the doses may be lengthened, but the tonics should not be entirely discontinued, until the patient is far advanced in recovery, on account of the dangerous sequelæ, which take their origin in an impoverished state of the blood.

Local Treatment.—It is important to keep in mind the purpose for which local measures should be employed, as stated above. It is to reduce the inflammation of the mucous surfaces, and destroy the diphtheritic poison, and contagious properties in the pseudo-membrane, and to destroy the septic poison, and prevent its absorption, if any forms. Forcible removal of the pseudo-membrane, irritating applications, the use of a sponge or other rough instrument, for making the applications, should be avoided as likely to do harm. The applications should be made either with a large camel's hair pencil, or, better for most of the mixtures employed, with the atomizer. The hand atomizer, like Delano's, which is cheap and of simple construction, while it carries a heavy spray from the curved tube, which is introduced over the tongue, is very useful, but the constant spray of the steam atomizer is more effectual, and is preferable in severe cases.

The following mixtures I am in the habit of using with the atomizer:—

1. *R.* Acid. salicylic. ʒss; glycerinæ, ℥ij; aq. calcis, ℥viij. Misce.

2. Acid. carbolic. gtt. xxxij; glycerinæ, ℥ij; aq. calcis, ℥vj. Misce.

3. Acid. carbolic. gtt. xxxij; potas. chlorat. ʒiij; glycerinæ, ℥iij; aquæ, ℥v. Misce.

Half a dozen to a dozen compressions of the bulb of the hand atomizer cover the surface of the throat more effectually with the liquid than can be done by several applications of the brush, and it is usually not dreaded by the patient. Diminution of size of the pseudo membrane under the use of the spray is a favourable sign, but if it do not diminish, its presence can do little harm, provided that it is properly disinfected.

In many cases of diphtheritic inflammation of the fauces the spray suffices for local

treatment, but the following mixture, applied by a large camel's hair pencil, is also very effectual, immediately converting the pseudo-membrane into an inert mass, and putting a stop to all movements of the bacteria which swarm in it, as I have observed under the microscope :—

R. Acid. carbolic. gtt. viij ; liq. ferri subsulphat. ʒij-iij ; glycerinæ, ʒj. Misce.

This may be used two or three times daily, between the spraying, or oftener without the spraying. It is not irritating (such an effect would condemn it), but it is dreaded by most children, on account of the unpleasant "puckering" which it produces.

That form of diphtheritic inflammation which most imperatively requires local treatment, and in which local measures are of more importance than the constitutional, is obviously the laryngitis. Catarrhal laryngitis sometimes occurs in diphtheria, as I have had the opportunity to observe in the dead-house, without producing any marked symptoms, but the pseudo-membranous laryngitis of diphtheria is also common, and, as all know, is one of the most dangerous forms of disease.

But those who observe carefully the effects of the spray (lime-water being used in the atomizer, as the most powerful solvent which can be safely employed) must admit that it is the most effectual agent at our command, for treating this very fatal affection.

Even mild cases of diphtheritic laryngitis may end fatally by systemic infection after the obstruction in the larynx is removed as in the above case, in which tracheotomy was performed, although the temperature during the period of the dyspnœa had been constantly under 100°.

Unless in comparatively rare instances, there is only one other diphtheritic inflammation which requires especial treatment, namely, that affecting the Schneiderian membrane. This membrane, in sensitiveness and liability to irritation, is intermediate between the conjunctiva and buccal or faucial membrane, and, therefore, when inflamed it requires milder applications than such as are appropriate for the fauces. Applications suitable for the fauces would, if thrown into the nostrils be, too painful, and might increase the inflammation. I know no better treatment of the nostrils, than to inject with a small syringe one to two teaspoonfuls of the following mixture every third or fourth hour. It should be used at the temperature of the body, with the head thrown back and the eyes covered with a cloth : Acid. carbolic. gtt. xxiv ; glycerinæ, ʒij ; aquæ, ʒvj.—*American Journal of Medical Sciences.*

Salicylates in Diabetes. — Dr. Muller Warnech, of Kiel (*Berlin. Klin. Wochensh.*), has tried the salicylate of soda in two cases of diabetes mellitus, and finds :—

1. That it removes the symptoms, though not always permanently.

2. The symptoms disappear the more rapidly the larger the dose.

3. In moderate doses (9 or 10 grammes daily), its influence soon becomes exhausted, but larger daily doses (14 to 16 grammes) exert an increasing effect on the diabetes.

4. Salicylate of soda can be used without disturbance of the general health for a long time in diabetes. Any symptoms of poisoning at once disappear on stopping the medicine for a time.

5. Salicylate of soda has only a slight irritating effect, even if given for a long time, on the kidneys.

Sebstein, of Gillinger, used it in diabetes in 1876, with great benefit.—*Med. and Surg. Reporter.*

Evacuation of Pus from the Pleura by Inversion of the Body.—Dr. Raynaud has tried with success the following method : A girl, fifteen years of age, convalescing from typhoid fever, contracted a purulent pleurisy, and after a time there was pulmonary perforation followed by a considerable vomica. The expectoration was insufficient to empty the liquid contained in the pleura, and in consequence the general condition became constantly worse. Dr. Raynaud then placed the child with her head below the border of the bed, and this manœuvre was followed by an abundant expectoration. This process, repeated several times, emptied the pleura of its purulent contents, and the child rapidly recovered its strength and was soon quite well.—*N. Y. Med. Journal.*

HOW TO EMPLOY MASSAGE.

We select the following from the chapter on Massage in Dr. S. Weir Mitchell's excellent little work on "Fat and Blood, and How to Make Them:"

After a few days' milk diet, with which my treatment ordinarily begins, the masseur or masseuse is set to work. An hour is chosen midway between two meals, and, the patient lying in bed, the manipulator starts at the feet, and gently, but firmly, pinches up the skin, rolling it lightly between his fingers, and going carefully over the whole foot, then the toes are bent and moved about in every direction; and next, with the thumbs and fingers, the little muscles of the foot are kneaded and pinched more largely, and the inter-osseous groups worked at with the finger tips between the bones. At last the whole tissues of the foot are seized with both hands and somewhat firmly rolled about. Next the ankles are dealt with in like fashion, all the crevices between the articulating bones being sought out and kneaded, while the joint is put in every possible position. The leg is next treated, first by surface-pinching, and then by deeper grasping of the areolar tissue, and lastly by industrious and deeper pinching of the large muscular masses, which for this purpose are put in a position of the utmost relaxation. The grasp of the muscles is momentary, and for the large muscles of the calf and thigh both hands act, the one contracting as the other loosens its grip. In treating the firm muscles in front of the leg, the fingers are made to roll the muscle under the cushions of the finger-tips. At brief intervals the manipulator seizes the limb in both hands and lightly runs the grasp upwards, so as to favor the flow of venous blood-currents, and then returns to the kneading of the muscles.

The same process is carried on in every part of the body, and especial care is given to the muscles of the loins and spine, while usually the face is not touched. The belly is first treated by pinching the skin, then by deeply grasping and rolling the muscular walls in the hands, and at last the whole belly is kneaded with the heel of the hand in a succession of rapid deep movements, passing around in the direction of the colon.

It depends very much on the strength, endurance, and practice of the manipulator how much good is done by these manœuvres. At first or for a few sittings they are to be very gentle, but by degrees they may be made more rough, and if the masseur be a good one, it is astonishing how much strength may be used without hurting the patient.

The early treatments should last half an hour and should be increased by degrees to one hour, after which should follow an hour of absolute repose.

After the first few days I like the rubber to keep the part constantly lubricated with cocoa-oil, which is agreeable in odor, and which keeps well, even in warm weather, if a little lime-water be left standing on the top of it. Vaseline is also a good lubricant, and both of these agents make the skin smooth and soft and supple.

As soon as a part has been manipulated it should be at once wrapped up.

In men who are hairy it is often needful to have the limbs shaved, because the constant pull made on the hairs gives rise to very troublesome and painful boils.

The early use of massage is apt in some nervous women to cause increased nervousness, and even loss of sleep; but these symptoms may safely be disregarded, because they pass away in a few days, and very soon the patient begins to find the massage delightfully soothing, and to complain when it is omitted. Women who have a sensitive abdominal surface or ovarian tenderness, have, of course, to be handled with care, but in a few days a practised rubber will by degrees intrude upon the tender regions, and will end by kneading them with all desirable force. The same remarks apply to the spine when it is hurt by a touch, and it is very rare indeed to find persons whose irritable spots can not at last be rubbed and kneaded to their permanent profit.

The daily massage is kept up through at least six weeks, and then, if everything seems to me to be going along well, I direct the rubber to spend half of the hour in exercising the limbs as a preparation for walking. This is done after the Swedish plan, by making movements of flexion and extension, which the patient is taught to resist.

At the seventh week the treatment is used on alternate days, and is commonly laid aside when the patient gets up and begins to move about."
—*Clinic.*

ACONITINE IN CARDIAC DISEASE AND NEURALGIA.

M. Gubler says in the *Journal de Therapeutique:* The cardiac disease was so marked in a young woman with organic disease of the heart after a small dose of aconitine, in my *clientele*, that she prayed to have the medicine stopped. Liegeois and Hottot have already demonstrated in aconitism, paresis of the heart and paralysis, from the action of the alkaloid. Under whatever form we employ it, as the amorphous aconitine, or the crystallized azotate of Duquesnel, it is a medicine difficult to manage, and we should use it with care.

It is better to give it in solution than in granules, as the latter are often inactive, and we are tempted to increase the number, owing to the seeming insensibility of the patient to the medicament. By using the solution, owing to its certain absorption, we avoid the danger of the accumulation of the poison, and we should begin with half a milligramme, progressively increasing the dose if necessary, as some patients bear even six milligrammes. I have never seen any bad results from its employment if it is given with care and in therapeutical doses.

Its disadvantages are nothing compared with its benefits.

In facial neuralgia its practical importance is very great, and it may be looked upon almost as a specific.

In neuralgia of the fifth pair, and even in tic douloureux, I have never known it fail, and I may mention two severe cases of facial neuralgia which yielded completely to the use of the azotate in progressively increasing doses.

The alkaloid is principally recommended in the congestive form of facial neuralgia; its effects are curative when there is no nervous lesion—palliative when the lesion is established. I am of opinion that all neuroses end by giving place to nervous alterations.

Aconitine, when given in the beginning, will completely cure facial neuralgia, and in those cases where the disease is advanced it will immediately afford relief; but unfortunately this action does not extend to other forms of neuralgia.—*Medical and Surgical Reporter.*

Surgery.

THE DIFFICULTIES OF DIAGNOSIS AND PROGNOSIS IN CERTAIN VENEREAL LESIONS.

BY W. A. HARDAWAY, M. D.,

Member of the American Dermatological Association.

It is commonly esteemed a not very difficult task to determine at first glance the diagnosis and prognosis of the hard and soft venereal sores, and to satisfactorily differentiate the various lesions which most resemble them. But in spite of the rules laid down in the books, an extended experience in this direction has taught me that their proper recognition, in some cases, even after repeated observations, is far from easy. This diagnostic confidence is in a great manner due to the wide-spread acceptance of the dualistic doctrine as it was taught a few years ago, and the dogmatic laws enunciated by that school of syphilographers. As this paper, however, is not intended for the specialist, but for the information and guidance of the general practitioner, I shall not inquire here into the truth or falsity of theories. I wish merely to offer facts in corroboration of the assertion as to the difficulty and uncertainty of diagnosis and prognosis under certain circumstances.

The principal affections that are most apt to give rise to doubt and confusion in the observer's mind are the chancre and chancroid, herpetic eruptions, abrasions, and systemic syphilitic manifestations; but as the central point of inquiry both with the physician and patient is in regard to the question of syphilis, I shall examine the other lesions mainly in reference to the infecting or true chancre. Generally, it is of very little medical importance whether the true character of an ulcer is made out a month earlier or later, as the treatment is, or should be, purely local at first; but as the men who consult a physician on these subjects usually have some knowledge of syphilis, they are naturally extremely solicitous for an opinion. I believe that there are few cases in which an immediate or even proximately immediate opinion can be safely given; but that in by far the majority, from numerous modifying causes and from the present inexact state of our knowledge, it would

be better for the judicious physician to leave the question to be decided by time. How much time is required is to be determined by the varying conditions found upon repeated examinations.

If our patients came to us with clear antecedent histories, with especially typical lesions, and these unaltered in appearance, untouched by caustic, and unirritated in any way, the difficulty in arriving at some definite conclusion would be materially lessened. But as a matter of practical fact the chancre and chancroid, the herpetic eruption, abrasion, etc., of the books, rarely fall under the notice of the medical man; or at any rate the cases are numerous where the aspect of sores is so changed by a variety of causes that the recorded descriptions are more a source of fallacy than instruction. Then again, there are venereal ulcerations in which none of the usual causes of obscurity obtain, but in which no immediate diagnosis is possible. It is these last cases especially which show that there is a great deal to learn and a great deal to unlearn as to the hard and soft sores. To my mind the question of pathology involved is still a very open one.

I am sustained in much that I have already stated by the experience of Mr. Jonathan Hutchinson, who writes* that, "patients will come to you with sores contracted a few days or a week or two before, and will expect you to be able to tell them whether or not, they are likely to have syphilis. Now, there is never anything in the conditions which are either present or absent that will justify the most practised observer in giving any opinion at such a stage. It is very rare indeed that an infecting sore acquires any induration within three weeks of the date of contagion, and more commonly it is a month or five weeks. Until such induration takes place, nobody can tell whether it is coming or not."

In experimental inoculation, whether with pus from the chancroid or with the secretion from the chancre, very constant local results are obtained—the pustule in one and the papule in the other sore—but in the consulting room, as observed by both Vidal and Baeumler, these lesions have no exclusive form, so as to enable one, without other concomitant circumstances, to pronounce definitely upon their nature. It must be admitted, however, that the ordinary chancroid presents much more constant characteristics than the chancre; for the local contagious ulcer, while itself stimulated by other conditions, never assumes any of the various features of the chancre, while the latter, when suppurating or ulcerating through any cause, may closely imitate the former. There is, however, a condition of the chancroid, mentioned by Hill, and which I have often seen, where syphilitic induration is closely imitated, if the inflammatory action of the simple ulcer has been kept up by repeated cauterizations. But presuming that a sore does present all the classical appearances of a chancroid, are we perfectly safe in assuring our patient that he is secure from constitutional infection? I emphatically say we are not. While I know by an every-day experience that the great majority of chancroids end as they began, a purely local difficulty; yet the instances are not infrequent where soft sores, multiple and auto-inoculable at that, have been followed by general syphilis. This fact no one can successfully deny, and it remains a practical warning to the physician when making his prognosis, whether he holds with the dualist in his theory of "mixed chancre" or believes with the unitist in the ultimate relationship of the two poisons. Mr. Lane, of London, who is evidently a unitist in theory, recently delivered a lecture (*Lancet*, May, 1877) on syphilis before the Harveian Society, and offered some of his extensive experience on this subject, which I shall quote and allow the reader to explain by any theory he may happen to entertain: "I have repeatedly seen suppurating sores, which I have had the opportunity of watching throughout their course, and which have never shown any induration that I could discover, but which have nevertheless been followed by constitutional disease. * * * * * It is unsafe to predict confidently that any venereal ulcer, even a soft sore attended with suppurating bubo, will entail no further consequences. There is a strong probability that an indurated sore will prove infecting, and there is a probability, though not nearly so strong, that a soft suppurating sore will not; but exceptions to

* London *Lancet*, quoted in St. Louis, *Clinical Record*, November, 1875.

both these general rules will be met with, and there really is no absolute proof of the infecting nature of any sore but the fact of infection itself."

Baeumler,* who is a very decided dualist, by the way, states that the local primary manifestations, even when produced by true syphilitic virus, in certain rare cases, recede without general symptoms following. He further declares that, "In another class of no less exceptional cases, probably under the influence of a personal predisposition, there occurs, immediately after the inoculation, a local inflammatory process, with ulceration, as in the *soft chancre*, by means of which the syphilitic poison is, very likely, counteracted in the part affected, and the poison may be thus destroyed. But under certain circumstances, where, notwithstanding this, the syphilitic poison takes, induration will follow later, together with general syphilis."

Great stress is usually placed upon the period of incubation of a sore as determining its character. When one can obtain a truthful statement—a matter of difficulty in itself—from his patient as to the date of last exposure, this is a most important and valuable method of diagnosis. While the infecting chancre generally observes a period of incubation of from two to three weeks, the fact should never be lost sight of that this period may be considerably longer or considerably shorter. The confusion which a very long period of incubation may occasion, I shall refer to subsequently when discussing abrasions. Dr. Hammond gives the circumstantial history of a case, where the period between the exposure and the appearance of an indurated sore was but thirty-six hours. Otis mentions in detail the case of a Confederate surgeon, who amputated the limb of a soldier, the subject of secondary syphilis, and who, during the operation, pricked his finger with a spicula of bone. Evidence of contamination ensued within twenty-four hours, and in due course of time was followed by the usual symptoms. R. W. Taylor has likewise published two cases, wherein the inoculation period was, respectively, twenty-four hours and one week. Rollet, in a patient of his, noted a period of nine days.* In a patient of mine the period of quiescence appeared to be but seven days, and I have observed several cases where it was within ten days.

The presence or absence of induration is an important factor in differentiation, and Bumstead goes so far as to say that he would not hesitate to regard its absence, at the termination of three weeks, both in the sore itself and in the neighbouring ganglia, an indication that the patient was free from constitutional infection.†

This emphatic statement, agreed to in the main by all the early dualists, is scarcely considered tenable now, even by its author. Every practical observer must have met with case after case, where no induration could be made out in the sore, yet in which syphilis subsequently followed. The dualists of to-day, however, do not consider so much the appearance of the sore as its source. This view of the question was forced upon them by common experience. Thus, Baeumler says, ulcers may occur on the genitals which show a distinct hardness, but which are not followed by syphilis, and for the simple reason that they were not produced by the syphilitic poison; on the other hand, the induration may be very inconsiderable or obscure in local affections which are followed by constitutional syphilis. Clerc met with ten cases of early syphilis, in the course of a couple of years, where he could determine no primary manifestations whatever; but as he also mentions a case where the induration disappeared in twelve days, Berkley Hill thinks it probable that when induration is supposed to be absent, it has simply been unobserved. Enlargement of the lymphatic glands near the point of primary lesion, is far more valuable in a diagnostic point of view than changes in the sore. Fournier found it missing in only three cases out of 265 men, and three out of 223 women. I believe that a certain amount of glandular engorgement follows all of the so-called hard chancres; still it sometimes happens that it is more or less difficult, or even impossible to make out, as, for instance, where the adenitis is slight and the parts are

* Ziemssen's Cyclopædia, Vol. III.

* These cases are quoted by Otis in the N. Y. *Medical Gazette*, June, 1877.

† On Venereal Diseases.

covered with much adipose tissue, and in certain scrofulous conditions which I shall refer to later.

Papular eruptions occasionally indurate on the penis, and if irritated or neglected sometimes ulcerate, thus bearing a strong resemblance to a true chancre. Tough, indurated cicatrices are not uncommon at the entrance of the vagina in uncleanly prostitutes, and when inflamed by filth and inattention imitate the initial manifestation of syphilis very accurately (Hill).

Fibroid gummy deposits, under certain circumstances, put on a very similar appearance to the venereal ulcer.

It is a matter of the greatest difficulty to determine the nature of ulcerations occurring in the female, and often it is only by symptoms external to them that their character can be recognized. Such is the rapidity of the evolution of chancres on the mucous membrane in women, and the difficulty of exploration that we obtain little or no result from the most minute examination (Cullerier). It is likewise no easy task to judge of the character of a concealed chancre—urethral and phimotic—particularly if the history is obscure or especial characteristics lacking. Ulceration, phagedenic or otherwise, may completely mask the induration of a sore, and accidental inflammation may altogether alter in character an accompanying specific adenitis.

Chafings, abrasions and herpetic eruptions give rise to very annoying doubts sometimes, and this arises in great measure from the vicious habit, not alone confined to the laity, of touching every suspicious point with caustic. If untouched in the beginning, these insignificant lesions heal in a few days under the most simple dressing; but the slightest cauterization, especially of herpetic vesicles, I have seen occasion most obstinate and persistent ulcerations, and when thus disguised by officious and useless interference, their real origin remains a question of uncertainty for weeks.

The ever present danger of the syphilitic virus gaining admission through an abrasion should never be forgotten, and it is a duty which the physician owes to his own reputation to inform his patient, when consulted on that account, of the possibility of such a danger. Under such circumstances, the natural inquiry is as to how long before local symptoms of infection will show themselves. The limits of safety in this respect are very hard to establish, and it is more prudent to defer it to a longer than a shorter period. As remarked before, the incubation stage may be a great deal more or a great deal less than the average. Martin reports the case of a girl confined in the St. Lazare prison, where the period of incubation was seventy-two days; M. Fournier one with an incubation of seventy days; Bumstead one of fifty days.

Then again it must be remembered that in some instances the local expression of infection is so slight as to be practically worthless for diagnosis, and after all we are obliged to wait through the period of second incubation before any opinion can be given.

The only condition of the lymphatic glands at all similar to specific induration with which I am acquainted, is to be found in scrofulous subjects. If an ulcer consequent upon exposure should be coincident with scrofulous engorgement of the ganglia much confusion would be the result, if a clear history were not obtainable. Epithelial growth on the glans penis or vulva, where they are rare, are frequently taken for chancres, and chancres on the lips, where epithelial growths are so often seen, are not infrequently mistaken for that form of cancer.

I am aware that I have given but an imperfect account of the various lesions that go to make up the perplexities of diagnosis and prognosis in venereal practice, but I believe that I have enumerated the more important ones. In this paper I have particularly concerned myself with the exceptions to the general rules—those cases in which, owing to many circumstances, no absolute and immediate opinion can be adventured upon; and I think that I have shown that the exceptions are sufficiently numerous to justify the greatest caution in prognosis, even at the hands of the most experienced observers.—*St. Louis Clinical Record.*

Treatment of Glandular Swellings and Abscesses.—M. Quinart has had excellent success in twelve cases of adenitis, which he has treated in the hospital of Ghent, by means of blisters. He is not content with attacking simple engorgement of the glandular tissue at the outset with a series of blisters, as Nelaton advised, but he employs the same treatment when pus has already formed. He has in this way succeeded in obtaining resolution of suppurating glands, that have contained several ounces of pus. When the suppuration is already advanced, and threatens to perforate the skin, he punctures the sac, not through the spot where the skin is already thinned, but at the most dependent part of the tumour, where the instrument must traverse a larger extent of healthy cellular tissue. When the sac is emptied it is covered, whatever its extent, by a blister which overlaps it on all sides by one or one and a-half inches. On the next day the blister is dressed with mercurial ointment; as soon as the skin begins to cicatrize, a second blister is applied, and so on. By this procedure, M. Quinart has succeeded in curing an abscess that extended from the angle of the jaw to the clavicle, and which contained over ten and a-half ounces of pus. An opening was threatened in the centre of the tumour, where the skin was thinned. The tumour was punctured just above the clavicle, and then entirely covered by a large blister. On the next day the little wound was reopened by means of a stylet, and a quantity of serous pus escaped. On the third day the greater part of the sac was closed; the fluid that accumulated in the most dependent part was reabsorbed, and the patient now presents no mark of his immense abscess, except a small cicatrix above the clavicle.—*Gazette Medicale de Paris. Medical Record.*

The Internal Administration of Opium for the Photophobia of Scrofulous Children.—Dr. F. Betz (*Memorabilien*, 7 Heft, 1877) states that the external application of opiates in this affection is impracticable, and that the greater ease and exactitude of carrying it out would soon cause it to supersede the atropine treatment. It being impossible for us to always keep these cases directly under our charge, the following plan seemed to him the best to be adopted. He begins by ordering 5-6 drops of tincture of opium to children, two or three years of age, just before retiring; older children receiving corresponding doses. Besides this, a compress dipped into cold water, and folded 6-8 times, is bound to the face as to cover the forehead and upper part of the face, extending at the same time well over both eyes. In very severe cases the compress may be dipped into ice-water. At any rate, the opiate is the principal feature, and the dose of this is gradually increased until quiet sleep is secured. Photophobic children are usually quite restless during their sleep, turning and crying out every few minutes. The opiate controls this symptom. The first local sign of improvement is that the children open their eyes earlier in the morning. The action of the opiate is often so prompt that a remarkable improvement is observed after a single administration, and now and then a complete disappearance of photophobia after a few days' treatment. Other local complications often require treatment for a longer time. The great change in the disposition of the heretofore peevish and irritable child shows how much the pain produced by too bright a light affects the entire sensitive nervous system. To guard against relapses, Betz continues the evening dose of opium for a considerable period, and expresses the opinion that the general nutrition is improved thereby.—*Allgemeine Weiner Med. Zeitung*, No. 35, 1877.—*Clinic.*

Coagulation of Pus by Freezing the Skin over Superficial Abscesses.—M. Obissier, of Bordeaux, states that, on attempting to empty an abscess with the aspirator under local anæsthesia with ether, the operation was arrested by the plugging of the canula with a fatty cylinder. He believed the latter to have been coagulated pus, because two hours latter, without anæsthesia, he was able to extract 200 grammes of pus.—*Gazz. Med. Ital. Venete.*—*N. Y. Med. Journal.*

Midwifery.

THE INVESTIGATION OF THE INTERIOR OF THE UTERUS BY THE CARBOLISED HAND AT LONG INTERVALS AFTER DELIVERY.

BY J. MATTHEWS DUNCAN, M.D., F.R.C.P.E.,

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Mrs. A. B. was confined at her home in the south of Scotland on June 5th, 1876. The child born was her second. She was attended by her physician, who lived in the neighbourhood, and to him I owe most of the details now to be given of her case. The labour was easy, natural, and lasted four hours. The placenta was removed without difficulty about fifteen minutes after the birth of the child. The membranes were twisted to ensure their complete withdrawal, and then a dose of ergot was administered. At 9 a.m., all was completed and well. In the evening of the 6th, Mrs. A. B. had a feeling of cold in the back and severe lumbar pain. On the morning of the 7th, her pulse was 120, and at night it was 140, at which rate it continued till after my visit on the 8th. The temperature rose correspondingly, but no note of its height is preserved.

In response to a telegraphic message, I saw the patient on the afternoon of the 8th, eighty hours, or nearly three days and a-half, after her confinement. I found her with every appearance of having an attack of pyæmia or puerperal fever *post partum*. The abdomen was slightly tympanitic, the uterus somewhat tender.

The circumstances of the case, both intrinsic and extrinsic, rendered the crisis extremely alarming and important. The lochial discharge was natural, and reported as having no fetor. Nevetheless, I made a vaginal examination, pushing the finger into the cervix uteri, and hooking away shreds of clot, which were unexpectedly found to be distinctly putrid. A second attempt brought away a small bit of membrane, putrid. Being at a great distance from proper instruments to complete what I regarded as the desirable treatment—namely, the removal by forceps of any other pieces of membrane or decidua—and time being very valuable, I had chloroform administered, with a view to the introduction of my hand into the vagina and of my fingers into the uterus, to effect the exploration and removal of what might be found that should be taken away. During this, I gradually penetrated farther and farther into the uterus without finding anything. At last my whole hand was inside the organ, which felt not unlike an uterus only recently evacuated. In the fundus of the uterus, it was now my extreme good fortune to find adherent an irregular lacerated patch of chorionic membrane, about four inches long and an inch broad. It was found to be fetid. After this, I left the patient.

Both pulse and temperature fell in a marked manner after this operation. The alarming appearance and symptoms disappeared. The pulse remained high for several days; but the extreme anxiety of the physician and friends was subdued for good.

The fetor of the discharge was recognised by the nurse after my visit, but only at first, or for less than a day.

While, as is well known, there is often insuperable difficulty in classifying cases of so-called puerperal fever under the heads pyæmia, septicæmia, ichoræmia, there can in this instance be no hesitation in designating the disease as simple septicæmia. Such cases are familiar to the gynæcologist. A decomposing uterine fibroid, a decomposing blood-clot in a hæmatocele, produce shiverings, sweatings, vomiting, delirium, high pulse, high temperature: a most alarming combination of symptoms, which, on the removal of their cause, is dissipated with extraordinary rapidity, in a few hours, as if by a charm. Such was the fortunate course of events in the case just narrated; but, had the putrefying membrane continued much longer in a puerperal uterus, a fatal result was probable.

In the case which I have narrated, the greatest care and attention did not secure the complete withdrawal of the membranes. The position of the persistently remaining shred renders it unlikely that any forceps would have reached it and removed it entirely; nor is it

probable that it would have come away in the discharges early enough to allow of the preservation of life, already most seriously threatened. It is under these circumstances that I propose the new operation of investigating the interior of the uterus by the carefully carbolised hand of the accoucheur, with a view to finding and removing decomposing substance. In such a state of matters, I have hitherto used the practice of Baudelocque; namely, antiseptic intra-uterine injections. I employ a double catheter, and I have repeatedly had reason to be satisfied with the results. But, in the cases where I have used this treatment successfully, there has not been washed out by the injections any shred of hidden membrane; and I very much doubt whether injections, in the case which I have narrated, would have produced this supreme result; for, besides the difficulty of directing the current so as to envelope and remove the adherent membrane, there is the absence of any knowledge where the hidden membrane is—absence, perhaps, even of suspicion of its presence.

There is, of course, as yet, no properly formed professional opinion as to the length of time after delivery during which it is possible to introduce the whole hand into the uterus in a natural case; and it is the whole hand that has to be introduced with a view to doing completely the operation I propose.

Some years ago, I was called in consultation by the late Dr. Coldstream, and removed an adherent placenta more than two days after the birth of the child. There had been great flooding. No difficulty was experienced in introducing the hand into the uterus.

The records of midwifery and ordinary experience show that the difficulty arises from uterine spasm, affecting generally the cervix, and especially its internal os, or rather the lowest part of the body of the uterus; and this is naturally expected, for it is the seat of the first obstruction to be overcome. But I am decidedly of opinion that it is not only the first met, but also the chief difficulty. The lowest part of the body of the uterus, or internal os of the cervix, is, in natural and morbid conditions, more difficult of dilatation than the parts of the body of the uterus above it. The history of natural pregnancy, cases of retained placenta, many cases of hourglass contraction, the dilatation of the unimpregnated uterus by tents, all combine to demonstrate this. Besides, many cases are on record where, long after delivery, as long as twelve or even nineteen days, the body of the uterus was large and dilated by contents, while the cervix was contracted. But the whole subject demands more and deeper study and investigation.

When the cervix is passed by the hand, there may yet be great difficulty; but there will probably be none, unless there is a morbid spasm higher up in the uterus than the internal os of the cervix. On the dilatation of the body of the uterus, I shall offer a few concluding remarks. While there are on record cases in which the hand has been introduced into the uterus several days after delivery, when it contained blood or placenta, there is none in which this operation has been done merely for the discovery and removal of a small piece of membrane, whose size involves no distension of the uterine cavity. That the novel operation, which I performed three days and a-half after delivery, may, with advantage, be done even considerably later, I do not doubt. But at present the whole subject, of the capability of the uterine body to admit the hand at long intervals of time from delivery, is in an unsettled state, and demands the clinical investigation of obstetricians on account of its evident practical importance.

The rapid dilatation of the uterine body many days after delivery is not very rarely illustrated in those cases of simple secondary hæmorrhage, and of secondary hæmorrhage with retained placenta or portion of placenta, when blood rapidly accumulates in the uterus, just as it does immediately after delivery. It is only this rapid dilatation of the uterine cavity that can be used to throw light on the operative procedure which I am in this paper proposing; but it may not be altogether out of place to remark that its slower dilatation, as in pregnancy, in simple hæmatometra, with or without atresia, and in operative procedures, demands careful study, which cannot but result in knowledge that will contribute to the elucidation of this subject.—*British Med. Journal.*

Original Communications.

To the Editor of the Canadian Journal of Medical Science.

INTERMEDIATE V. MEDICAL MATRICULATION.

Dear Sir,—In a recent issue of the *Kingston Whig*, is an article under the above heading, to which I desire briefly to refer.

The writer refers to the fact, that certain students who had successfully passed what is known as the "Intermediate Examination" of the High Schools had failed in the Medical Council Matriculation examination as conducted by Mr. Wood of Kingston, and he would seem to have the public infer that this result was due in part to the fact that Mr. Wood's examinations were more thorough. I do not altogether concur in such an inference. Of Mr. Wood's competence as an examiner, there can be no two opinions. His standing as a literary man of the highest type is beyond controversy. Nor do I desire to offer the slightest objection to his method of conducting examinations, because I believe him to be, in every respect, equal to the responsibility, and entirely above suspicion, so far as fair and honourable dealing is concerned. But I do think that the intimation that Mr. Wood's method of conducting examinations is so far superior to that of others quite as competent as he, that—the above—mentioned failures have been the consequence—is not susceptible of proof. Any one at all conversant with examinations knows that a student only indifferently acquainted with the various subjects required for matriculation might happen, with one examiner, to get a set of questions with which he was sufficiently familiar to obtain the requisite number of marks to pass him, while with another, such questions might be put as to completely baffle him. This, I think it will be admitted, is an almost every-day occurrence for which no examiner can be held responsible. If a student reaches the requisite percentage in his examination neither Mr. Wood nor anyone else can refuse to pass him. But no one will deny that such a student may have but a very indifferent acquaintance with his subject; and that it would be quite possible to propound questions to him which, while perfectly legitimate and reasonable, might result in his complete and absolute failure. It is not, therefore, doing justice to the other examiners for the Medical Council, nor to those conducting the Intermediate, to intimate that, because certain students who passed the Intermediate Examinations, failed under Mr. Wood, those who conducted the Intermediate failed to discharge their duty. Nor is it any evidence that the requirements of the Intermediate are any less searching or stringent than the Matriculation Examination demanded by the Council.

It may be fairly questioned whether the Council's interfering with the literary acquirements of intending students further than demanding a *bona fide* certificate from any authorized University of their having successfully passed its Matriculation Examination, was a necessary arrangement. I am aware that such legislation was by some considered necessary during the early history of the Medical Council. But I fail to see that in order to avoid such irregularities as prompted this legislation, it was the only remedy. It will be remembered that before the incorporation of the Medical Council, grave irregularities were disclosed as to the manner in which students were permitted to pass their Matriculation Examinations before some of the schools. Moreover, at the time to which we refer, each University possessed the licensing power, and so had the entire control of the education of its medical students, not only as regarded their literary, but also their professional qualifications. Then it was quite possible, if the authorities of any University were lax enough in the control they exercised over the Medical School in affiliation with them, for the managers of such a school to admit students to their professional studies whose preliminary education was of the most indifferent character.

And thus students whose preparatory training was but trifling, and who had no ambition to acquire a higher standard of preliminary education, were attracted to the medical institution where the bugbear of Matriculation offered the least cause for embarrassment. But from the moment the Medical Council had an existence in its present shape, and the licensing power of the Universities was cancelled, any encouragement that may have been offered for such irreg

ularities as were complained of, was removed. No teaching body could serve any purpose either to itself or any one else by submitting its students to an indifferent matriculation examination; and they certainly would be risking their reputation very seriously, as well as leaving the students insufficiently qualified for the pursuit of their medical studies, so that, if a duly authenticated certificate of matriculation from some authorized University were received by the Medical Council and all students were required to come to the same *medical* standard, all the checks and guarantees that were necessary would have been demanded. This, I think, might have been done. I am quite sure that no University would attach its seal to a certificate of matriculation with the risk that the holder of it might afterwards display such ignorance of the subjects required for matriculation as would compromise that institution.

It may be said that, even yet, if the preparatory education of students were left in the hands of all Universities, it might be made the means by which those Universities having Medical Schools more or less intimately identified with them, could attract a larger number than at present. This objection will, on a little reflection, I think, be found to be purely sentimental. If all students must pass through the same ordeal before obtaining license in medicine, and it be granted that the more thorough preparatory education secures the more complete discipline for the pursuit of professional studies, I apprehend that young men will seek their preliminary education just where they find it can best be attained. More than this, I believe young men will, as a general rule, be attracted just where they can secure the most thorough discipline in their medical studies and no where else.

But what is now proposed, according to the *Kingston Whig?*—After refusing hitherto to accept the matriculation of any of the Universities, we are informed that the Council is *seriously considering* the propriety of accepting the Intermediate Examination as an equivalent for its own matriculation, and that a committee has been appointed to deliberate and report upon the subject at its next annual session.

This, if true, and I am assured it is, does strike me as somewhat extraordinary. Since its inception, the Council has refused most persistently to accept the matriculation of any University. It is now gravely considering the propriety of accepting the Intermediate Examination of the preparatory schools to these Universities, which, to say the most of it, is certainly a no higher standard than that required by any University in this country, and of still ignoring the Universities. And we are informed by some of the advocates of such a measure, in all seriousness, that the High Schools will be more likely than the Universities to act in good faith in the conducting of these matriculation examinations. This, with the most liberal construction, is not paying a very high compliment to the honour and honesty of the authorities of our Canadian Universities. To say that any University would display such an utter disregard of its duties to the students whose education has been entrusted to it as to give its endorsation to a certificate of matriculation unmerited by the holder of it, is a statement which, I honestly believe, is entirely undeserved. I have no hesitation in characterizing such legislation as ill-judged on the part of its promoters; and I do hope that, for the credit of the Council, it will not be entertained for a moment. There is not one substantial reason for the adoption of such a measure. If all students are compelled to submit to the same medical standard, who is to suffer if their preliminary education be insufficient? I apprehend that, if the Medical Council exercises due vigilance as regards the professional training of the students seeking its authority to pursue the practice of medicine, for a period of four years, its responsibility may reasonably be regarded as ending there, and that to the Universities may *safely* be committed the responsibility of directing their preliminary education. If these Universities are entrusted with the matriculation examination, no one of them will run the risk of compromising itself so far as to certify to the qualifications of a man whose ignorance might afterwards reflect discreditably upon the thoroughness of its discipline.

The Council has already established a prece-

dent such as would amply justify the full surrender to the Universities of the right to direct the preliminary education of intending medical students, by accepting, as *bona fide* evidence of general education, their degrees in arts. Has it any more right to doubt the sincerity of the Universities in the matter of matriculation than in that of degrees? I honestly think not; and I should be very glad to see the entire matter of preliminary education left in the hands of the Universities. I would be quite willing to advocate even a higher standard of education than that now required by the Medical Council for matriculation, if such was thought desirable. I have no doubt that the time is not far distant when the higher mental discipline secured by the pursuit of the subjects of general education much farther than what is now demanded, will be regarded as an important desideratum to the more thorough preparation of the student for the effective pursuit of his professional studies. But, in order to meet the circumstances of many worthy young men, I would be satisfied to see the standard of preliminary education put at a *bona fide* matriculation in any recognized University. This would save very considerable expense to the Council, and would, in my judgment, secure all that we have by the present arrangement. On no account, however, should the Council allow itself to be committed to a course which, in the first place, is retrogression, and secondly, is a direct reflection upon the honesty of the several Universities. If it cannot entrust the Universities with this matter, it would be far better to allow it to remain in its present shape.

W.

In a communication to *New Remedies* Wm. T. Plant, Registrar of Syracuse University, states that they subject students to a preliminary examination; their college year is nine months long; they insist upon attendance throughout the entire year of all candidates for the degree; they make a systematic division of studies and insist upon each regular student following the prescribed course. Harvard, Syracuse, and Ann Arbor are the only schools in the States that compel a nine months' course.

Hospital Reports.

(Reported by Mr. Burton.)

CLINICAL LECTURE ON SYCOSIS.

BY DR. J. E. GRAHAM.

James T——, age 23, single, waggon-maker by trade. Perfectly well in every other respect, cleanly in habits, never had any constitutional disease. Relations healthy. In the fall of 1875, was shaved by a barber, who inflicted a slight wound on lower and outer aspect of right side of chin. Soon afterwards at this spot, little blotches were noticed of whitish-yellow colour, containing pus. These on being opened discharged their contents and scabbed over with a firm, dry, well-marked crust. On dessication taking place the underlying skin was found to be reddened and inflamed. The disease gradually spread over the right side of the face first, then over the front of the chin and upper lip, and lastly, commencing from a fresh nucleus at the upper part of the left cheek, spread downwards to the chin. It attained these dimensions in about a year's time.

In the fall of 1876, had a severe attack of typhoid fever, during which, the disease entirely disappeared, only to return, however, upon the departure of the fever. Admitted into the Toronto General Hospital October, 1877. Both sides of face, upper lip and chin, of a darkish red colour, dotted here and there with small pimples containing pus. Is in excellent health in all other respects.

This, gentlemen, is a case of sycosis menti, or, as it is commonly called, barber's itch.

There are two forms of sycosis, True Sycosis and Sycosis Parasitaria. This is an example of true sycosis. The principal points to be noted are: the location of the disease and the form of the pustules. You see that the eruption covers only that part of the face, usually occupied by a growth of hair, and there are no indications of its presence on other parts of the body. The pustules you perceive are isolated, and if you observe them closely you will distinguish the presence of a hair growing out from the centre of each papule. This is highly characteristic of true sycosis.

At the outset of the disease, tumours appear about the size of millet seeds or larger. These develop into pustules, which dry to sharply-defined scabs. The pustules are pierced by a hair, whose root when withdrawn is found enlarged and saturated with pus. The skin around the pustules is often greatly swollen and œdematous. It is not so in this case, however. Later in the disease the whole bearded skin is full of sharply-defined abscesses of the size of a hazel nut.

The parts generally attacked by true sycosis are, as I have already pointed out, the hairy parts of the face, chin and neck, but it may appear on the parts of the nasal mucous membrane which have hairs. The eyelids and eyebrows, and in rare cases the hairs of the forehead and temples (especially after recent eczema) may be attacked, but the rest of the head is never involved. It has occasionally been observed in the hairs of the genitals of both sexes. Sycosis of the face, however, occurs only in bearded men.

Treatment.—We pull out the hairs or epilate as it is called. You would think that this would destroy the growth of hair, but on the contrary it rather favours it by removing the *materia morbi* which ultimately destroys the hair follicle. The hair should not be pulled out, however, till suppuration has taken place in the pustule. If scabs or scales are present, apply sweet oil, followed by poultices. When they are completely removed and the surface of the skin is brought to view, various applications may be made. In this case I used citrine ointment for some time. Occasionally a stronger treatment is resorted to and a solution of hydrarg. bichlor. gr. ij to ʒvj of water is used; but great care must be taken in its application, as it sometimes causes excessive irritation of the skin. This patient was put under the course at one period, and after using it for a few days in his own home in the country, when the effects could not be watched, he came in to us with his face swollen and painful from the irritation produced by the lotion. He is now taking potass. iodid. and liq. arsenicalis internally, and applying the unguent, diachyli, which consists of equal parts of olive oil and empt. plumbi, externally.

The pathology of the disease is obscure. Some think that this inflammation begins in the interior of the hair follicle with a consequent suppuration of the same. I hold in my hand a pamphlet written by Dr. Robinson of New York, a fellow graduate of mine, who has devoted himself to the study of dermatology, where he expresses the opinion that the inflammation commences in the tissues surrounding the hair follicle, and only subsequently attacks the follicle itself and the hair contained therein, pus forming around the root of the hair as a consequence.

We are equally in the dark as to the causes of sycosis. The great German dermatologist, Hebra, thinks it possible that the inflammation may be excited within the follice by the development of a new hair from its base, where the papilla is located before the old hair falls out. Wertheim considers that the disposition to sycosis is explained by the diameter of the hair being too great when compared with that of the hair follicle. Others think that the use of dull razors is the cause. The hair of the beard is stronger and thicker than that of any other part of the body, and when the skin is in an irritable condition, passing a blunt razor over the stiffened hair disturbs their roots and brings on the disease. Hebra, however, has found that sycosis occurs more frequently in those who do not shave. The action of heat and uncleanliness are other causes assigned for it, but it has been repeatedly observed, as in the present case, in those who are cleanly in their habits.

We have to diagnose true sycosis principally from three diseases—sycosis parasitaria, eczema, and lupus erythematodes. In sycosis parasitaria, the microscope shows us the parasite and ring-worm is discoverable in other parts of the body. The papules are not so distinct as in true sycosis. The hairs are first affected, which in the true form they do not alter till afterwards; that is, when the exudation into the follicle has become purulent. It makes rapid progress, while the true form may remain stationary for months or years. It is nearly always preceded by herpes tonsurans. In eczema barbæ, or eczema of the face, the pustules are confluent, not distinct, and moreover are not pierced by a hair as in true sycosis; there is itching and great moisture.

In lupus erythematodes there are no pustules.

It occasions a loss of substance. The scales are very adherent, and when removed, present villous prolongations on their under surface, consisting of masses of sebum which are drawn out from the follicles, either alone or together with the walls of the same. Does not confine itself to hairy parts of the face, but attacks chiefly the nose.

COMPOUND FRACTURE OF THE HUMERUS AND OS CALCIS.

[Under the care of Dr. Aikins.]

Thomas G——, aged 19, while officiating as brakesman on the Grand Trunk Railway, in February, 1876, fell down between the tracks, nine cars and a van passing over him. Found to have sustained compound comminuted fracture of the left humerus at the junction of the upper with the middle thirds, and also a severe contused wound of the tissues surrounding the right os calcis, with comminuted fracture of the posterior and inferior half of that bone. The patient believes that the latter injuries were caused by an attempt on his part, while under the cars, to push himself into the centre of the track, the flanges of one or two wheels passing over his heel. Was seen by two practitioners, who decided to amputate at the left shoulder joint, and immediately above the right ankle. Two days after the accident, and prior to the operation, Dr. Aikins being called in consultation, found on examination that the circulatory and nervous supplies of the wounded extremities were in a good state, considering the amount of injury sustained. The pulsations of the brachial and posterior tibial arteries were distinctly felt below the points of fracture. The nerves of the hand though partly paralyzed still responded to irritation, while the grand nerve trunks at the heel were unaffected, the point of injury being below and behind their course. The Dr. gave it as his opinion that the limbs could be saved. They were immediately elevated to a height of eighteen inches respectively, and extension made by means of a weight of nine pounds on the fractured humerus. About a week after the accident, owing to sloughing of the part, the posterior and inferior half of the right os calcis was removed, together with the injured tissues surrounding it. Linseed poultices were applied to both wounds and hygienic and nutritive measures were adopted. Two months subsequently three pieces of necrosed bone were detached from the injured arm, which speedily regained its normal power, the fingers only continuing a little stiff. About the same time water dressing was substituted for the poultices on the foot, and grafting was repeatedly tried, with tolerable success. The external wound having now nearly closed, the patient was allowed to move about, but on taking liberties with his freedom, the grafts and surrounding tissues ulcerated away. Entered Toronto General Hospital in August, 1876, and was discharged in January of the following year with the wound perfectly healed up. He now went to work, constantly walking about with the help of a stick, but, owing to the chafing produced by the pressure of a shoe on the cicatrix, this again ulcerated, and he was obliged to return to the Toronto General Hospital in September, 1877, where, after a month's rest, the wound is cicatrizing favourably.

DIABETES MELLITUS: OTITIS PYŒMIA.

BY DR. J. E. GRAHAM.

Robert T——, age 33, married. Was a sober, temperate man till February, 1873, when, owing to heavy domestic afflictions, he began to drink heavily, continuing the same till May, 1874. In November, 1876, had an attack of dyspepsia, and for two or three days his urine was thick, dark coloured and did not flow easily, and then for some days was normal. This was repeated several times. Pain was also present across the lumbar and abdominal regions. The urinary symptoms disappeared speedily, but the pains continued till February of the ensuing year 1877. In May, 1877, had bilious fever and underwent three relapses. During second relapse, his urine began to flow copiously, but this was checked by medicines. About the last of August, 1877, this symptom returned, and has continued ever since. Entered Toronto General Hospital September 19th, 1877. Diagnosed saccharine

diabetes. Quantity of urine passed per 24 hours, about 9 pints. Sp. grav. as voided, 1036. As shown with yeast test, 1005. This gives 31 grains of sugar per oz.

Treatment.—Milk, meat, etc., abstaining from all farinaceous food. Medicines, tonics and liq. opii sed.

Sept. 27th.—Caught cold by sitting in a draught, this brought on slight congestion of the lungs with severe febrile symptoms, and internal otitis on the left side.

Oct. 1st.—Complains of hemicrania on left side, heaviness and dulness.

Amount of urine passed per 24 hours, 13 pints 9 oz ; sp. grav., 1032. Tested with yeast, 1006—equal to 26 grs. sugar per oz. ℞, lactic acid and tinct. chiretta.

Oct. 6th.—Commenced Bethesda water and bran biscuits.

Oct. 10th.—Amount of urine passed per 24 hours, Ovj., ʒxiij.

Oct. 11th.—Abscess in internal ear of left side opened externally, giving relief. Complains of great weakness.

Oct. 15th.—Supply of Bethesda water finished.

Oct. 16th.—Bran biscuits gave out. Immediately on the stoppage of these supplies, the urine was augmented in quantity, Ovij. ʒiv. per 24 hours.

Oct. 18th.—Fresh supply of Bethesda water.

Oct. 23rd.—Weak. Profuse perspiration. Desquamation of cutaneous epithelium, constituting the condition known as brany skin. Amount of urine, Oxij. ʒiv. per 24 hours.

Oct. 26th.—Chills. Great pain shooting down from ear tc supra orbital region and from mastoid bone to back of head. Twitching and cramps during whole night, with pains in left knee.

Nov. 1st.—Violent pain in left knee.

Nov. 5th.—Comatose, stertorous breathing, feeble pulse.

Nov. 6th.—Died.

Great emaciation. Heart and lungs healthy. Brain healthy, the sulci being very deep. Nothing noticeable found in the liver or kidneys. On examination of the left ear, an abcess was found in the labyrinth, filled with dark-coloured, bad-smelling pus. On opening the left knee joint, it was found filled with pus. There were no other abscesses.

It would appear that the patient died of pyæmia. The morbific matter having been absorbed from the abscess in the left ear, had set up an inflammation of the knee, accompanied, or rather followed, by profuse suppuration. If pus itself or purulent thrombi had been absorbed from the abscess, they would have been deposited in the form of emboli in the lungs, but the lungs in this case were quite healthy.

Sudden Unilateral Blindness Cured by Paracentesis.—Dr. Berger mentioned the following case : A woman, 36 years of age, found herself suddenly blind in the left eye one morning. She had long suffered from nervous headache, and had taken a large amount of bromide of potassium. Slight temporary paralytic symptoms had recently manifested themselves in the extremities of the left side. The arteries could be seen upon ophthalmoscopic examination, but the circulation through the veins, distinctly observable in the other eye, could not here be determined; otherwise the veins seemed normal. Local abstractions of blood, residence in a darkened room, and the application of the constant current all failed, and on the fifteenth day paracentesis was performed. Upon the escape of a little fluid, she was immediately able to recognize persons and objects about her. Two days afterward, paracentesis was repeated. The cure was perfect. No cardiac lesion could be discovered. The writer explains the occurrence upon the theory of a vascular spasm. This case seems to re semble very closely the somewhat numerous cases of so-called ischæmia of the retina.—*Schmidt's Jahrbucher*, No. 7, 1877.—*Clinic.*

University of Pennsylvania.—It augurs well for the future of medical education that the profession has unmistakably shown its sympathy with those schools which have honestly endeavoured to raise the standard. Contrary to the expectations of the University authorities, the class has not undergone any temporary reduction, and about 140 new students have matriculated for the three years' course.

Translations.

From *Union Medicale du Nord-est.*

Elementary Advice to Mothers & Nurses.

At a meeting of the *Societe Medicale de Reims*, M. Bienfait read a draught of the advice to be given to mothers and nurses by the Society for the Protection of Childhood.

"*Nursing.*—The duty of a mother is to preserve the life of her infant by suckling it from her own breast, or, if her health will not permit of this, by providing for it a nurse. If it be absolutely impossible to give the child human milk, or if this be insufficient in quantity, it ought to be supplemented by the milk of some animal (cow, goat, &c.), for *milk is the only nourishment suitable for a child* during the early months of life. Animal milk ought to be given under those conditions which render it most like the mother's milk. It should be taken as far as possible from the same animal. It should be given, still warm, soon after it is drawn, unless it be taken fresh, in a glass which has been thoroughly cleansed between the time of milking and that of the meal. It should never be boiled. It should be diluted with slightly sweetened water, warm enough to bring the mixture to the temperature of the body (37 degrees centigrade; 98.4 Fahr.). The dilution should be made at the time of each meal: with one-half water during the first week; one-third water during the three following weeks; one-quarter water afterwards up to the fourth month. Dating from this time it should be given warmed in a water bath, not diluted, but with the addition of a very small quantity of sugar. Glass vessels only should be employed for drinking (feeding) purposes, and they should be scrupulously cleansed after each meal. The remainder of one meal should never be offered to the child again. The hours of feeding ought to be regulated. During the day a meal every two hours is necessary, but an interval of 4 or 5 hours between the two meals from the middle of the night should be reserved for the rest of the nurse. After the sixth month various milk gruels may be given or light paps of cheese farina. About the end of the first year fat (meat) soups may be taken occasionally whilst still continuing the milk. The child will thus by degrees be prepared for weaning.

"*Weaning.*—The weaning ought only to be made after the eruption of from 12 to 16 first teeth, taking into account besides the season of the year and the health of the child. Even after weaning, animal milk ought still to enter largely into the diet up to the age of two years at least.

"*Toilet.*—Each morning, before the first meal, the child should be washed from head to foot, with water rather fresh than hot, and have his linen changed. Where needful, a hair brush and oil should be used every day to prevent the formation of *bouzet*, which is only an injurious crust (dandriff). Washing of the lower part of the body should be repeated as often as it becomes soiled with urine or the stools.

"*Clothing.*—The clothing will vary so as to protect the child from variations of temperature. The garments should always be large enough to permit of the greatest freedom of movements. The belly-band (binder) should form part of the clothing during the first months.

"*Bed.*—The mother and child should never sleep in the same bed. The cradle should be scrupulously clean; the air and the light should circulate freely around it; the curtains should be light, and should never be closed except on the side from which currents of air, too great heat of the sun, or that of a fire, might incommode the child.

"*Exercise.*—During the first days the newly-born should be held in the arms or on the knees for some hours; but, unless in an exceptionally mild temperature, should not be taken out before the fifteenth day. After this first going out it should be carried out every day during the mildest hours. These walks, short at first, should be gradually increased, the prolonged action of a pure air favouring in a high degree the development and health of the child. The day should then be divided between long sleeps and long walks at regular hours. In the intervals the child should be laid upon the floor upon a blanket,

free to move and roll about. He will thus learn to raise himself alone, and to walk when the time comes without running the risks which the use of carriages and wheeled panniers, &c., entails. The midday sleep should be continued up to the age of three years at least.

"*Medical Requirements.*—The child should never be offered the breast of a nurse, other than the mother, unless she has been examined by a physician. Vaccination ought to be done by the age of five months; sooner in cases of smallpox epidemics. The preceding rules will only admit of very rare exceptions; they should not be departed from in any particular without the advice of a physician. Every indisposition of the child lasting over twenty-four hours imperiously demands the attention of a physician."

This instruction was adopted by the Society.

From *Lyon Medical.*

Treatment of Simple Ulcer of the Stomach.

BY DR. GALLARD.

In this, as in all diseases, the most important point is rest of the affected organ; but how difficult is this to obtain when the organ diseased is one whose function is indispensable! Absolute rest being impossible we are obliged to content ourselves with comparative rest, and the best means of obtaining this is to give easily assimilable foods in small quantities at a time. Among such foods milk holds the first place. But it is not always tolerated, either because the patient rebels against this aliment—one of the rarest of cases—or because the conditions under which it is administered leave something to be desired. In large cities where the milk is rarely fresh we see it turn very readily in the stomach, and it is rejected in the shape of a cheesy mass. We may obviate this by adding to it a small quantity of the bicarbonate of soda. But the true way of enabling them to retain the milk is the following:—Give milk freshly drawn, not boiled, but simply brought back to its normal temperature by a water-bath, and let it be taken in very small quantity at a time—if necessary a tablespoonful every five minutes. Many persons will thus bear the ingestion of a considerable quantity of milk, who would not be able to digest it administered in any other way. When pure milk is well borne, when a certain quantity of it can be taken at a time we may add to it oatmeal, farinaceous matters, or biscuits, acting precisely as we would do in weaning a child.

When these porridges themselves are well borne, we may try broth, and the juice of meat in the form of soups, but should return to the milk gruels if the fatty diet is not well borne.

Besides the fat soups, as the patient's digestion becomes still better other foods are found which are more nourshing, these are: the yoke of egg and raw meat grated. The raw meat diet should be begun in small quantity, 10 to 20 grammes (150 to 300 grains) per day and increased gradually. Then at length with extreme caution we may add other articles of food, which must be interrupted and renewed again during a more or less extended period, until it becomes possible for them to eat as other people.

Patients should choose the dark meats grilled or roasted, they should avoid wines and acid fruits,—beer, especially malt beer, may be of service.

When the acidity of the gastric juice is too great, Pougues water should be used, or a few spoonfuls of lime water before meals (Vals and Vichy waters are too alkaline.) To relieve gastric pain and prevent vomiting ice or iced drinks taken in mouthfuls will be found to answer well.

But, beside this rational alimentation, it is necessary to take into account individual idiosyncrasies of the patient, who sometimes will not bear it, whilst he can digest perfectly a very different kind of food—oysters, ham, and smoked tongue, etc.

It is to the diet that we must attribute the greater share in the cure of ulcer of the stomach: therefore it comes first. However, certain remedies may assist it. We have already spoken of Pougues water; the narcotic medicines may also be of use. Opium should be administered in doses of 1 centigramme (0-15 grain) or half a centigramme before meals. M. Gallard largely employs the following formula; Chlorhydrate of morphia 10 centi-

grammes (1½ grains), distilled cherry-laurel water 5 grammes. Mix. One or two drops on a lump of sugar before meals. The subnitrate of bismuth and prepared chalk may also prove beneficial, by covering the ulcer with a protective film. If there be constipation English magnesia will serve the same end at the same time as it performs the office of the alkali. The nitrate of silver, vaunted by Trousseau, and the perchloride of iron have no curative or appreciable action, and the latter remedy may give rise to acute pain. As for external agents, cauteries, moxas, etc., although their indication appears rational, they possess no efficacy. This is not true of flying blisters, which have often allayed the pain and arrested vomiting. Tepid baths may also be useful when there is febrile action. As for the convalescence, it does not differ from that of other diseases. Tonics, reconstituants, sulphurous or saline baths, hydrotherapy, etc., may be advantageously employed. *Abeille Medicale*, 10th Sept., 1877.

From *Lyon Medical.*

On Dilatation of the Urethra by the Urine itself.

This process of dilatation, which M. Berenger Ferand seeks to bring again into fashion, originated with Brunninghausen, who made it known at the end of the last century. Here is the *modus faciendi* as it is described in the *Bibliotheque Germanique Medico-Chirurgicale*:—"Brunninghausen has discovered a method, easier, more convenient, and simpler than that by bougies, and he recommends practitioners to give it a trial; it consists in dilating the urethra by the urine itself. For this purpose it is necessary for the patient each time he wishes to micturate to lightly compress the urethral canal with the fingers behind the glans. Supposing that constriction be near the neck of the canal, as often happens, the pressure ought to be sufficiently strong to prevent the urine escaping except with difficulty and after having sojourned some time in the canal, which, by this means, will be found more or less dilated throughout its whole length, and consequently at the strictured spot. The patient taking care to repeat this operation every time he is obliged to micturate, he will obtain, little by little, by this means, the same effect as would be expected from the use of bougies, without experiencing any of the inconveniences of these latter." To the facts cited by Brunninghausen, M. Berenger Ferand adds several gathered from his own practice, and relating to old men affected with prostatic engorgement with difficult micturition. The following are the terms in which the physician in chief of the navy expresses himself upon the object and bearing of Brunninghausen's proceeding:—

1st. Dilatation of the urethra by the urine being repeated at each urination, and for a long time after an attack of blennorrhagia of a certain duration, appears to me to be, judging from the facts which have come under my observation, a prophylactic means against urethral strictures.

2nd. In cases of stricture not far advanced it appears to me, as Brunninghausen has stated, to have re-established the urethral calibre if not in its normal proportions, at least sufficient for a reasonably easy micturition.

3rd. After operations of urethrotomy it is perhaps a useful means of preventing, or at least of notably retarding the return of, the coarctation which is too often reproduced with disheartening obstinacy.

4th. In cases of prostatic varices of the neck of the bladder, and of the membranous portion of the urethra, it appears to me also calculated to be of service.

5th. There is another category of cases which do well under dilatation of the canal by the urine itself: it is those in which a partial or total hypertrophy of the prostate deforms more or less the neck of the bladder and the corresponding portion of the canal, cases which are often enough met with in old men. It happens in individuals who are thus affected that the first drops of urine, which they emit with so much difficulty and delay, act efficiently in filling the canal when the meatus is compressed. This canal once re-established in its ordinary calibre, then easily gives passage to the remainder of the contents of the bladder. The proceeding which we have just considered has then the happy effect of only allowing the difficulty of emission to exist for the first drops,

whilst if it be not employed the old man is condemned to a difficult micturition throughout the whole act, a micturition, moreover, which is accomplished intermittingly, the effect of which is the soiling of the clothes, whilst the incomplete emptying of the bladder gives rise to spurious desires to urinate, which, returning and disappearing unseasonably, end in being at once a source of moral torment and a very disagreeable physical infirmity.—*Bullet. de Ther. et Chir.*

Oil and Extract of Cod's Liver.

There is a point in the history of cod liver oil to which the attention of our readers may be profitably turned. Are the numerous analyses of this complex substance sufficient to clearly define its active elements and to give a theory of its mode of action? At first the fatty part, as respiratory aliment, was considered to be the curative principle. Different fatty substances have been substituted for cod-liver oil, and although not altogether inert, they have always proved inferior to it. Then part of the good effects was attributed to the chlorine, bromine, iodine, and phosphorus, but their presence in the oil is in homœopathic quantities, and attempts to substitute iodized, phosphorized, bromiodized oils or iodine butter for cod-liver oil have not been followed by satisfactory therapeutical results. A Russian professor twenty years ago originated the idea that the preeminently active principle of cod-liver oil was the volatile principle (isolated later in 1850 by Wertheim, and called by him propylamin), to which this oil owes its odour and taste *sui generis*, characteristic of this product. According to the opinion of Dr. Kalenickzenko, an opinion shared by a goodly number of physicians, cod-liver oil, brown and not purified, is of all kinds the most active. It is three times more active than others, and consequently can be given in one-third of the dose. He holds that its superiority is due to the elements of bile and the aromatic volatile principle contained in it. Propylamin diminishes intra-organic combustion, lowers the quantity of urea, exercises a sedative action on the nervous system, and manifestly alleviates neuralgic and rheumatic pains. M. Meynet of Paris, after careful experiments, concludes that the extract obtained by concentrating the water from cod's livers by special processes is like in composition to non-purified brown oil; that it is even superior to it, in view of the proportion of its active elements, and consequently that it ought to produce the same therapeutical effects as cod-liver oil. This extract of cod's liver of M. Meynet contains more than half its weight of gaduine, (the fatty portions, intimately united with the glycogenic matter), the soluble principles of bile, a proportion relatively enormous of the metalloids—chlorine, bromine, iodine—phosphoric acid, lime, soda, azotized and ammoniacal substances, and finally propylamin. The odour and taste of this extract are still more detestable than those of cod-liver oil, and renders its administration as such impossible. But given in the form of coated pills (pilules dragéifiées), that is, sufficiently covered with gum and sugar, it is readily taken and very easily digested.

In France several physicians have tested this new product, and have obtained satisfactory therapeutic results from its use. These pills of Meynet should not be confounded with capsules, or pills saponified or not, containing but an insignificant and inert quantity of cod-liver oil. — *Revue de Therap. Medico-Chirurg.*—*L'Union Medicale du Canada.*

From *Lyon Medical.*

On Arsenic in the Treatment of Malignant Lymphoma.

BY DR. WINIWARTER.

In 1871 Prof. Bilroth published a case of multiple lymphoma rapidly cured by Fowler's solution internally. Since that time similar cases have multiplied, and in fact it is easy to demonstrate the happy effects of arsenic in these cases of lymphomata which have grown serious either on account of the size or the number of the tumours, and when we are no longer permitted to think of ablation of the diseased glands. Even when operation is possible there is an indication to have recourse to the arsenic in order to prevent extension of the disease to the neighbouring glands.

The arsenic is given internally, and it is at the same time administered outwardly by parenchymatous injections. Internally, they

begin with five drops of Fowler's solution combined with five drops of tincture of iron, administered morning and evening during a meal; it is afterwards increased by one drop every two or three days until the appearance of toxic symptoms; it is not then necessary to suspend the treatment, but merely to diminish the dose by one drop every two days. Usually the toxic phenomena are manifested on reaching 25 or 30 drops per day. Sometimes, however, you can reach 40 drops without accident, but you must stop there.

In the parenchymatous injections Fowler's solution is employed pure, of which only a few drops are injected in the one spot. Two or three injections a day may be thus made if there be no local irritation. If the injected parts inflame, the inflammation may be reduced by hot applications, as may also neuralgic pains if they appear after an injection. It is important to throw the injection into the glandular parenchyma without invading the subcutaneous connective tissue which would produce sudden and severe pain. Children bear the arsenic better than adults. Sometimes the treatment occasions agitation and insomnia and some excitement of the nervous system; all that disappears as soon as the doses are diminished. Generally, but not always, there occurs a little remittent or intermittent fever. This fever occurs about an hour after the injection; during its duration, the tumour always diminishes in size, and the fever only occurs in cases in which the tumour diminishes, it is simply a fever of absorption. There is often a little point of necrosis at the exact spot of the injection, the gland nevertheless undergoes neither suppuration nor caseation; it is probable then that the arsenic in circulation acts upon the lymphatic cells in such a way as to render them reabsorbable. Good diet and an alcoholic regimen ought to be adopted concurrently with the arsenic as a set-off to its alterative action.

We observe a very similar article in the *Gazzetta Medica Italiana* for 29th Sept., 1877, page 330. (Trans.)

At a meeting of the *Société des Sciences Médicales de Lyon*, M. Bouzol showed a patient 53 years of age affected with chorea for nine months.

From *La France Medicale.*

The Gases of the Stomach and Bowels and of Flatulent Dyspepsia.

At the session of the *Academie de Medicine* on 9th Oct., M. Leven read a paper bearing this title; we append his conclusions:—"To recapitulate, alimentary substances do not appear to produce the gases, those that are found in the digestive tube come from the outer air, the blood, and the fecal matters. The gases which are produced in flatulent dyspepsia are not due to decomposition of the food, but arise from the three just mentioned sources, they are continually set in motion by the pathological contractions of the muscular fibres of the bowel, and expelled by the mouth; they are continually reproduced; their production may be incessant, as well in a fasting individual as in one who has eaten.

"This symptom, formation of gas, signifies then an irritation of the bowel which is always consecutive to a stomachal dyspepsia of long standing.

"The course of the disease,and the treatment to be followed for its removal, confirm these facts of clinical observation There is no need to seek for a remedy against the gas; in fact, the powders which are called absorbent, such as carbon, do not absorb the gas, a fact which I have verified experimentally. Athough carbon *en bloc* absorbs gases, as soon as it is reduced to powder it has lost all absorbent property."

Iodoform.

M. Cuffer in *La France Medicale* speaks highly of the therapeutic effects of iodoform as an external application. He states that although no very appreciable benefit has followed its internal administration, its topical influence is very evident. Iodoform has a double action—anæsthetic and cicatrizing. Its anæsthetic properties render it useful in anal fissures, hœmorrhoids, ulcerations of the throat and ulcerated cancers, especially those of the face, mouth, breast, and cervix uteri. It is necessary to use the remedy in fine powder and to apply it carefully to all the diseased surface. The simplest way to obtain it in fine powder is to dissolve it in ether and allow the latter to

evaporate. In using it for hœmorrhoids it should be made into suppositories. It can be applied without danger in considerable doses, no bad effects having resulted from its use.

Its cicatrizing action is astonishing in its rapidity. Soft chancres, ulcerated buboes, mucous patches, and syphilitic ulcers of any kind, yield to it. Phagedenic ulcers are often arrested in their course, and onychiæ are cured in a few days. Scrofulous sores, lupus and epitheliomia of the lip have shown remarkable amelioration after its application. Inflammatory symptoms disappear, and exuberant granulations lose their unhealthy aspect, the progress made towards cure in a single day following the use of iodoform being often astonishing. Its penetrating odour is a great objection to its use, but nothing that has been tried as a substitute has given corresponding results. Its application requires certain precautions. The first, is to apply it after thoroughly cleansing the wound. This may be done with the spray of warm water. Then the powder is applied and the wound covered with lint, the dressing being changed daily or twice a day at first, the intervals being gradually lengthened as the cicatrization progresses. It may be applied to the throat, or to the neck of the uterus by dissolving it in ether and using the spray apparatus. (Tannin is said to disguise the smell of iodoform.)

From *L'Union Medicale.*

The Salicylate of Soda in Articular Rheumatism.

During a discussion upon salicylic acid and the salicylates at the *Academie de Medecine* on the 24th July, M. Jaccoud related the particulars of 21 cases under his own observation treated by these remedies. The conclusions at which he arrives are as follows :—

1. In acute febrile articular rheumatism, without complication, the salicylate of soda, in doses of 8 to 12 grammes per 24 hours, is the most powerful therapeutic means that we possess to-day : it cures more rapidly than any other.

2. Although its action may sometimes be prompt enough to bring about a cure in an interval of from 2 to 4 days, it is not possible to assign to the treatment a duration of 3 days. It would, indeed, be imprudent to do so, for the deceptions (failures) which would certainly follow the adoption of such a rule would have the effect of compromising a remedy, which, in suitable cases, is worthy of complete confidence.

3. The salicylate of soda does not prevent the cardiac, pulmonary, and cerebral complications of acute rheumatism.

4. When these complications exist before the employment of the remedy, it has no effect upon them.

5. In spite of its antipyretic properties, the salicylate of soda does not prevent the thermometric rise which reveals the development of visceral complications in the course of the treatment which is being employed.

6. In febrile rheumatism with slight complications, we may still employ the salicylate of soda in order to profit by its antipyretic and analgesic effects, but it is desirable, in order not to compromise the remedy, to supplement this treatment by the use of revulsives, and sometimes of stimulants.

7. In febrile rheumatism with serious complications, reliance cannot be placed on the salicylate of soda, and it is important to have recourse to other remedies.

From *Lyon Medical*

Researches upon the Temperature of Sarcomata.

Prof. S. A. Estlander (of Helsingfors) has in six cases measured the temperature of sarcomatous tumours of rapid growth. In these six cases he found that it was notably higher than on the corresponding regions of the sound side (from 0·8 to 1·5 degree of Celsius). The author took care to observe those cases only in which there were no inflammatory phenomena, and in which the skin was healthy. This heat of sarcomatous masses, a heat which, being greater than that of the arterial blood, cannot be attributed to superactivity of circulation, is probably connected, says our author, with the rapid development of the elements of the tumour. At all events, it seems that for the present we may admit that every tumour which presents an elevated temperature is in reality a sarcoma.—*Nordiskt Medicinskt Arkiv.*

Pain in the Pneumogastric Nerves as a Sign of Bronchial Adenopathy in Pulmonary Phthisis.

M. Michel Peter in a communication to the Clinical Society of Paris draws attention to the fact that in pulmonary phthisis, pain in the pneumogastric isa sign that the bronchial glands are affected. Pressure in the neck at the outer side of the carotid causes acute pain on the side affected or on both sides if both lungs are involved. Pain in chest on the side affected is complained of, and the epigastric region is tender on pressure. A clanging, violent, laryngeal cough, gastralgia, vomiting and distressing palpitations also point to irritation and inflammation of the pneumogastric by the pressure of enlarged bronchial glands. In a case referred in which the diagnosis of adenopathy of the right bronchial glands was fully confirmed by *post-mortem* appearances, great relief was derived from the hypodermic injection of morphia in the epigastric region morning and evening. Every distressing symptom was relieved, but the pulse was not reduced in frequency.—*La France Medicale.*

From *La Andalucia Medica.*

Crystals of Glycerine.

We were not hitherto aware that glycerine could assume the crystalline form. Mr. Van Hamel Roos has presented to the Chemical Society of London a magnificent sample of crystallized glycerine. This product possesses the advantage of serving to distinguish pure glycerine, since it has been found that, when it is pure and anhydrous, it crystallizes naturally when it is cooled to 26° if a crystal of glycerine be introduced into it. The crystal increases in size, and the impurities remain in the mother liquid.

Dr. Brown's Chlorodyne contains 5 parts of concentrated muriatic acid, and 10 parts each of ether, chloroform, tincture of cannabis indica, and tincture of capsicum, 2 parts each of morphia and hydrocyanic acid, 1 part oil of peppermint, 50 parts simple syrup, and 3 parts each of tincture of hyoscyamus and tincture of aconite.

Formularies.

Treatment of Prolapsus Ani.

Foucher and Dolbeau recommend subcutaneous injections of the following to facilitate the reduction of the prolapsed mucous membrane :—

℞ Water..... .....100 grammes.
Sulphate of Atropine 0·50 centigramme.

Dr. De Saint Germain recommends douching the parts night and morning for twenty or thirty days after reduction. The evaporation of ether sometimes facilitates the reduction. Bouchardat uses the following suppositorics :—

1. ℞ Powdered rhatany 2 grammes.
Cocoa butter.....18 "
2. ℞ Powdered oak bark 20 "
Honey.....9.5 "
3. ℞ Tannin..... .. 1 "
Cocoa butter.....10 "

For prolapsus ani accompanied by relaxation of the sphincter, Schwarz prescribed as follows :—

Water..... 8 grammes.
Nux vomica.....0.05 centigr.

Two to fifteen drops of this solution to be taken every four hours according to age. Duchaussoy employed 0·05 centigrammes of strychnia endermically, on a small blistered surface. Lorigiola uses hypodermically the following :—

℞ Strychniæ sulphat. 0·12 centigr.
Aq. destillat..... 12 grammes.

Four to twenty drops to be injected according to age.

Langenbeck recommends ergotine hypodermically.

Boudin prescribes—

℞ Ergot.....1·50 centigr.
Water..... 50 grammes

To be taken in three doses.

Ergot has also been used as an injection.

Boyer & Duchenne advise electrization of the sphincter; cauterization, ligature, excision, partial or total, radiating incision and stretching of the sphincter, have all been recommended.—*La France Medicale.*

Pomade for Pityriasis Capitis.

M. Vidal regarding pityriasis as due to the predominance of the sudoriparous over the sebaceous glands, believes that the first indication is to supply the deficiencies of the latter. With this view he uses pomades composed purely of vegetable oils, regarding animal oils as often too irritant.

He prescribes usually—

Cocoa butter	10 parts.
Castor oil	50 "
Oil Bergamot	q.s.

—*Lyon Medical.*

From *L'Union Medicale.*

Antipruritic Lotions—Delioux.

Borate of Soda	8	grammes.
Distilled Water	100	"

Dissolve.

Or,	Borax	10	grammes.
	Glycerine	20	"
	Distilled Water	80	"

Dissolve.

This lotion is recommended in pruritus, ephelides, pityriasis, and other herpetic manifestations.

From *L'Union Medicale.*

Antidysenteric Clyster—V. D'Arlon.

Sulphate of Alum and Potash	8 to 12 grammes. (120 to 180 grains.)
Extract of Valerian	4 grammes. (60 grains.)
Laudanum of Sydenham, (Vin. Opii.)	1 gramme.
Starch	30 grammes. (450 grains.)
Decoction of Marsh Mallow	500 grammes. Mix.

This quantity is enough for two injections to be taken in the 24 hours in cases of dysentery.

For Dysentery.

℞ Bismuth Subnit	½	ounce.
Salicylic Acid	6	grains.
Carbolic "	3	drops.
Laudanum, (Sydenham's)	1	drachm.
Tinct. Belladonn	1	"
Aqua	1	pint.

M.

Inject one ounce with baby syringe after each evacuation.

Uterine Neuralgia.

℞ Tinct. Aconit. Rad	ʒiss.	
Ammon. Chlorid	ʒii.	
Ammon. Iod	ʒi.	
Tinct. Card. Co	ʒi.	
Syr. Aurant	ʒiv.	
Aq. Anisi	ad ʒviii.	

M.

Sig., one drachm every four hours.

Salicylic Acid Mixture—Cassan.

Salicylic Acid	4	grammes.
Citrate of Ammonia	2	"
Rum or Cognac	30	"
Distilled Water	154	"

This solution contains about 25 to 30 centigrammes of salicylic acid per tablespoonful. The citrate of ammonia enables the salicylic acid to be dissolved in a smaller quantity of brandy.

Varnish for Burns.

℞ Common Varnish (1 part litharge to 25 parts of linseed oil.)	10	parts.
Salicylic Acid	2	parts.

—*L'Union Medicale.*

A case of axillary aneurism cured by pressure on the subclavian, by means of a shot-bag, is reported in the New York *Medical Journal* by Dr. B. A. Watson.

Royal College of Physicians and Surgeons, Kingston.—The dinner of the Students and Faculty of this institution took place last month, was well attended, and very successful. We understand that the number of students this session is large.

Parrish Hall.—A private Medical Home for Opium *habitues* has been opened in Brooklyn, N.Y. The system pursued is the immediate reduction of the quantity of opium consumed to that amount which will suffice without suffering, and thenceforward its gradual decrease. Therapeutical and dietetic measures to suit the indications are used. Drs. J. B. Mattison and A. M. Mathias are Superintendents; Dr. Parrish, Consultor.

THE CANADIAN

Journal of Medical Science,

A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor.*

TORONTO, DECEMBER, 1877.

CLINICAL AND PATHOLOGICAL INSTRUCTION AT THE TORONTO GENERAL HOSPITAL.

To the two hundred students sent, by the two medical schools in Toronto, for clinical instruction and the acquirement of an acquaintance with pathology and morbid anatomy, to the Toronto General Hospital, it is a matter of vital importance that the facilities and opportunities afforded by that institution should be utilized to the utmost.

In view of the fact that the hospital contains from 150 to 200 beds, and that for the most part these are continually filled, it must be apparent that the materials presented for clinical study are, in point of numbers, up to the average.

Moreover, taking into consideration the manifest desire on the part of the trustees to further, by every means in their power, the interests alike of patients and students, and the expense they have already incurred since their tenure of office to promote the same, it would occur to one, as a natural sequence of these two conditions, that the advantages for clinical and pathological instruction presented by the hospital, would be superior, if not unusual. Such, however, is not the case; and the reason is not far to seek. One stumbles across it on the very threshold of the inquiry; it lies at the door of the instructors and their system.

At present, we believe, the clinical instruction at the hospital consists in examining before the class on four or five days in the week any out-patients that may be in attendance, making a few remarks upon the signs and symptoms as elicited by the lecturer's examination, and dictating a prescription. Then follows a didactic lecture, by courtesy called clinical because delivered in the presence of the (bedridden) patient, and afterwards a perambulation through the wards. This state of affairs is so well described and its utter uselessness so clearly pointed out by one of the greatest of British clinical teachers that we cannot refrain from quoting his remarks. Dr. Murchison, lately appointed Special Lecturer on Clinical Medicine at St. Thomas's Hospital, in his inaugural address from the newly-constituted chair, is reported to have said: "Until a few years ago there was no teaching in any of our British Medical Schools which deserved the name of clinical; and, if I am rightly informed, there are still many medical schools where the sole clinical instruction consists in the delivery by the physicians and surgeons of an occasional systematic lecture upon some disease, with one of the hospital patients, whom the majority of the audience may never have seen, to serve as a text; while the student is left to pick up what practical knowledge of disease he can in walking the wards, and these, if he be idly disposed, he may rarely, if ever, enter. At the best, the ward visit usually consists in the dictation of notes by the physician or in his calling attention to certain physical signs or symptoms in a case which by many students are unheeded, and by none are connected with the entire clinical history of the case. But medical students, in order to learn their work, must not only see the patients as they pass their beds, but handle them, question them, and use all their senses in finding out their symptoms for themselves. * * * To obtain a practical knowledge of disease and its treatment, the student must watch it in its various phases; he must learn to exercise every sense which he possesses—his eyes, ears, fingers, and even his nose—in its study; he must note the endless varieties which the same disease presents in different patients, and which he will find recorded in no other book than that of nature, and he must endeavour to discover the natural course of each disease, and how far this appears to be modified by treatment."

Before proceeding to show how this eminent clinician carries out his plan of clinical instruction, we desire to admit two exceptions to the general charge of inadequate clinical instruction at the Toronto General Hospital. The first refers to the case of clinical clerks, who, of course, have access to the wards at other than the visiting hours, and enjoy the inestimable privilege of personal manipulation and interrogation of the cases. But these do not constitute a tithe of the students in attendance; and even in their case the want of personal supervision and instruction is lamentably apparent in the character of the reports of cases and the hospital records. The second applies to one of the teachers, who, we understand, conducts a private class for clinical instruction, but this is a matter of individual enterprise, and has nothing whatever to do with the systematic clinical instruction at the hospital.

We may now proceed to describe Dr. Murchison's method of clinical teaching, as a model which our clinicians would do well to copy, and in doing so we make use of his own words: "The plan, then, which we follow in the wards is this: those students who wish to take part in the clinical examinations are invited to give in their names to me, and each student so doing is examined in turn. At one time he is called upon to examine a patient who has just been admitted into the hospital. He is taught the art of eliciting by cross-examination a true account of the patient's previous medical history; he is taught never to stop short at what appears to be the first and most obvious conclusion as to the nature of the case, but to note the morbid phenomena in each physiological system of the body, the normal or abnormal physical conditions of the different internal organs, and the chemical and other changes in the various secretions. Having done all this, he is called upon to make a diagnosis of the malady, and a prognosis as to its probable cause; to suggest a line of treatment, and, if necessary, to write a prescription. At another time, he is questioned with regard to patients who have been already under observation, and whom he has seen examined at a previous visit. He is called upon briefly to recapitulate the facts made out at the former examinations, to note the changes which have taken place since the patient's admission, to reconsider when necessary the original diagnosis, to state the remedies which were prescribed, to note whether the results expected from these remedies have been produced, and to suggest the expediency of maintaining or altering the treatment." In the course of every examination many opportunities present themselves to the physician for making clinical remarks. "By the plan which I have described, those students, who were not present at the original examination of the patient, are put in possession of the principal facts of the case, and the attention of the whole class is secured, as no student can be certain that he may not on a future occasion be called upon to undergo a similar examination upon the same case. Moreover, this plan teaches the student the art, so often wanting in medical men who may yet have a thorough knowledge of their profession, of conveying to a professional brother an accurate, and yet concise, statement of a patient's medical history, and present condition." * * * * "The student who comes forward, in the manner I have described, before the whole class, is not only taught himself, but he himself becomes a clinical teacher. His difficulties, his suggestions, and even his mistakes, become the means of teaching the rest of the class. The blunders you make show you how to avoid them for the future, and in the meantime furnish me with a capital opportunity for clinical remarks. You are to bear in mind that the best and most experienced physicians are constantly making mistakes in examining patients and in the diagnosis of their diseases."

To the objection often urged that patients come into the hospital to be cured, and will not willingly submit to the annoyance of repeated examinations at the hands of students, Dr. Murchison replies: "This objection would certainly be a very serious one if it had any real foundation, but I do not believe that it has. Most patients have the sense to see that their maladies, by the plan we follow, are being sifted to the bottom in a manner they could never hope for out of the hospital; and, instead, it has repeatedly happened that patients who have not been examined by the clinical class, although receiving all the care and attention of

ordinary hospital patients, have considered themselves neglected."

This, then, is the true way of imparting clinical instruction, and it has infinite advantages over the old plan at first described. But while we would have this done, we would not have the other left undone; for it, too, may have its uses, and we would have it made subsidiary or supplementary to the teaching in the wards. These didactic semi-clinical lectures in the theatre may thus be utilized, as suggested by Dr. Murchison, for exegetical purposes, and the lengthy elucidation of difficult cases; for placing concisely before the class "the prominent features of a number of different patients," and dwelling "particularly on the diagnosis and treatment of the diseases of which they are the subjects," and reiterating time and again "line upon line, and precept upon precept." These lectures may be also useful as affording an opportunity for discussing the prognosis "which in many cases it would not be expedient to do in the presence of the patient." Moreover, "they afford an occasion for considering the mode of termination of the maladies from which our patients suffer, for reviewing their clinical history after they have recovered, and for determining in fatal cases how far the lesions found on *post-mortem* examination harmonize, or are at variance, with the observations made during life." Lastly, they enable the clinical teacher to point out "the various morbid conditions which may give rise to the same prominent symptom (headache, dyspnœa, convulsions, jaundice, dropsy, hæmoptysis, albuminuria, the typhoid state, &c., &c.) and the means of determining the particular cause in each case."

Of course all this involves a greater expenditure of time and labour and care on the part of the teacher, yet we are persuaded that no one possessing a due sense of the responsibility of his office in educating the embryo physicians of the future, and a sincere love of his profession, will grudge the extra effort entailed upon himself; and for those whose thoughts are only selfish, if any such there be, it may be added that no man can teach another and fail to learn himself.

Having seen in what way the clinical instruction at the hospital is defective, and how it may be remedied, let us now take a glance at the conditions surrounding the study of morbid anatomy and pathology. Here, too, the medical officers, and not the institution, are chargeable with dereliction of duty as imparters of knowledge, and neglect of opportunities for self-improvement and the instruction of others. In the first place, we are informed on credible authority, the death-rate of the hospital is up to the average, and it is a matter of personal observation that three or four *cadavera* may occasionally be seen synchronously occupying the mortuary, yet it appears that a necropsy is the exception and not the rule. Even if it be granted that those under whose care the patients may have died are so familiar with morbid appearances and pathological processes that the impressions made upon their physical and mental eye do not need refreshing by occasional (not to say constant) inspections; even if their diagnostic acumen so astute as to render superfluous any elucidation of a case by *post-mortem* examination (an opinion of their own abilities and the perfection of medical science not entertained by the distinguished pathologists of the Old World), yet a recollection of the fact that the fleeting moments of the short probationary period of the pupils whom they have undertaken to instruct, will be, for the majority of them, the only season and opportunity of learning to recognize the anatomical changes and morbid appearances effected by the ravages of disease, should at once remind them that the neglect of golden opportunities of imparting knowledge is attended with a terrible responsibility. Besides the fact that the study of morbid anatomy is too much neglected, there remains another crying evil incident to slovenly and incomplete examination in the few autopsies which are made. Speaking from personal observation, we may say that in an occasional experience of the mortuary work of this hospital extending over some years, we do not remember ever to have witnessed a complete and thorough *post-mortem* examination (even in cases of crowner's quest). The absolute necessity of a thorough examination of all systems, organs and tissues (macroscopical and if possible microscopical and chemical) before arriving at a definite conclusion in any case has been of late so strongly insisted upon by all pathologists

(of whose opinions on this subject Virchow's little book on "Post-mortem examinations" is an admirable exponent) that the careless and perfunctory performance of a *sectio* has justly come to be regarded as a waste of good material which might have served a better office in the dissecting-room. With reference to Virchow's little work on "Post-mortem Examinations," mentioned above, we may say, in passing, that, having now been translated into English, it should be in the hands (and head) of every student, and we may add, in the words of a late writer in an English Review: "No student who does not know by heart every word and every line in it should be regarded as eligible for a hospital appointment." In the meantime we would commend to all students of pathology at the Toronto General Hospital (teachers as well as pupils) the three following *regulæ aureæ*, quoted from a late leader in the *London Lancet*: "The first of these golden rules is to examine carefully and systematically every organ of the body, whether obviously diseased or not, and to draw no inferences, and form no opinions, until the examination is complete. The second is to note fully the condition and appearance of every part and organ at the time of the examination, and to add nothing to, and subtract nothing from these original notes. If it be added that it is always necessary to keep for further examinations everything of doubtful nature, no other general rules are needed."

We have ventured to make these remarks from no carping spirit, and with no desire to find fault for fault-finding's sake, but in the earnest hope that by directing attention to the evils complained of, their removal may be brought about to the lasting benefit of patients, pupils, and teachers, and, through them, of the community at large.

Subscribers will greatly oblige by notifying us at once if they desire any change in their address, as we have to print the mailing list for 1878 this month. We hope that all will square accounts with us without further delay.

JOURNALISTIC.—"The Monthly Journal of the Southern Illinois Medical Association" is the title of a new medical periodical.

It is our intention to add to the appearance of the Journal in January by enlarging the size of the paper in order to leave more margin for binding. Advertisements will no longer appear on the last page of reading matter, and will not, therefore, require to be bound with the Journal, as has occasionally happened in Vol I. and II.

To those who have encouraged us so far we owe and tender sincere thanks, and hope to continue to merit their good opinion by showing year by year improvements in our work. We ask our friends to assist us by obtaining subscribers, writing original communications and keeping us posted in all the medical news of their several districts.

We have to-day (November 27th) received a volume of the "Transactions of the Canada Medical Association." Subscribers should send their names at once to Dr. Osler, 1351 St. Catharine Street, Montreal.

An important advertisement of the Registrar of "The College of Physicians and Surgeons of Ontario" appears in another column.

BOOK NOTICES.

Report on Dermatology, Syphilis, and other Exanthemata. By L. P. YANDELL, Jr., M.D., Louisville. Reprinted from Transactions of Kentucky State Medical Society, 1877.

APPOINTMENTS.—Mr. Thomas Annandale has been appointed successor to Mr. Lister in the Chair of Clinical Surgery in Edinburgh University.

Dr. P. Heron Watson has been elected President of the Royal College of Surgeons of Edinburgh.

Dr. Angus Macdonald succeeds Dr. Matthews Duncan as Ordinary Physician for Diseases of Women to the Edinburgh Royal Infirmary.

Miscellaneous.

Ayer's Pills consist of pepper, colocynth, gamboge, and aloes.

Dr. Paul F. Eve, of Nashville, died on November 10th, at the age of 72.

Dr. W. R. Basham, Senior Physician to the Westminster Hospital, died on October 16th.

Professor John H. Balfour, M.D., has resigned the Deanship of the Medical Faculty of Edinburgh University.

The total number of students registered at the Royal College of Surgeons, England, is 1,879 against 1,793 last session.

The induction of reflex action by "blowing in the ear" is said to be efficient for the removal of a foreign body in the throat, such as a piece of meat.

In Paris ladies' bonnets are now trimmed with flowers dipped in chloride of cobalt, which causes them to assume in dry weather a dark-blue colour, and in the humidity preceding a rain, a pinkish hue.

The Chinese Government has passed a permissive edict calling upon the governors of the various provinces to suppress the indulgence of opium smoking. Three years' notice is given before the edict comes in force.

Mrs. Winslow's Soothing Syrup consists, says Hager, of 8 parts of white simple syrup mixed with 1 part of a tincture made by extracting 10 parts of freshly crushed fennel seed and 1 part of oil of fennel with 60 per cent. spirits.

Large Doses of Iodide of Potassium.—In the course of the recent meeting of the American Dermatological Association, it was stated that Dr. A. Brooks, of Chicago, had given as much as one thousand grains per diem of iodide of potassium.

The widow of the late Dr. J. Rhea Barton, of Philadelphia, has endowed with fifty thousand dollars the chair of surgery in this institution. The professorship will hereafter bear the name of the distinguished surgeon to perpetuate whose memory this liberal gift was made.

Dr. C. J. Cullingworth, in the *British Medical Journal*, reports a case of cancer (cylinder-celled epithelioma) of the stomach in an infant five weeks old. The first symptoms manifested themselves on the tenth day after birth.

A Circulating Surgical Instrument Association has been started by Mr. Millikin in London. By an annual subscription of one guinea, any medical practitioner may borrow, in good working order, any surgical instrument which may be required either for operation or for the treatment of a case.

A New Mucilage.—The *Journal de Pharmacie* states that if, to a strong solution of gum arabic, measuring 8½ fluid ounces, a solution of 30 grains of sulphate of aluminum, dissolved in two-thirds of an ounce of water, be added, a very strong mucilage is formed, capable of fastening wood together, or of mending porcelain or glass.

Treatment of Blepharospasm.—Several obstinate cases of this malady, after resisting the action of all other remedies, have at last been cured by the inhalation of nitrite of amyl. The most recent is one recorded by Dr. Harlan, of America, in which the cure seems to have been permanent. — *Schmidt's Jahrbucher.*—*Clinic.*

To make Shoes Water-tight.—The following recipe is from the *Droguisten Zeitung:* A litre of boiled linseed-oil, 125 gm. of mutton suet, 46 gm. of wax, and 32 gm. resin, are melted together on a charcoal fire, under constant stirring, and the melted mixture applied to the well cleaned and dried shoes. The leather retains its full elasticity, and becomes absolutely impervious to water.

Prevention of Dental Caries.—1. Rinse the mouth thoroughly with water after the last meal of the day to remove all food. 2. Rinse immediately afterwards with an alkaline solution to neutralize any acid or its effects. 3. Brush moderately in the morning to remove any mucus secreted during the night. By these simple means toothache would be rendered as rare as it is now common.

Tannin as a Deodorizer of Iodoform.—J. R. Cole, A.M., M.D., Resident Physician of Hot Springs, Ark., writing to the Editors of *New Remedies*, says:—Having accidentally discovered that *tannin* will deodorize *iodoform*, I take pleasure in making known this fact to you, and through you, to the profession. I use it in equal parts, as an application to chrancroids and to old offensive ulcers.

McGill Medical Society.—This is a society organized by the Medical Students of McGill, which has done a good work among them. Weekly meetings were held from early summer to the end of July, at which readings and papers on medical subjects were given by the members. At present, and during the winter session, the meetings are held fortnightly. Societies of this kind are capable of doing much good, so we hope the professors of McGill will encourage it.

A meeting has recently been held in New York, to take preliminary steps towards organizing a Therapeutical Society. We have already expressed our opinion of the need which exists for such an association of physicians, and shall anticipate with great interest the developement of its plan of operations, which, we understand, will aim to promote our knowledge of therapeutics by careful observations of the action of selected remedies in specified conditions.—*New Remedies.*

A Case of Hydrophobia cured by Curare used subcutaneously is reported by a Dr. Offenburg of Wickrath, in Prussia. The injections were given at intervals of from a quarter of an hour to an hour. Two centigrammes ($\frac{1}{3}$ grain) was the dose first administered. In four hours and a half seven injections had been given, representing 19 centigrammes of curare. The symptoms were characteristic, and were markedly alleviated by the treatment, the toxic effects of curare showing themselves. The patient was discharged cured.—*Med. Times and Gazette.*

Recovery after Taking Eighty Grains of Tartar-Emetic.—Mr. F. Mason, of Bath, England, reports, in the *Brit. Med. Jour.*, a case of a labouring man who took, by the mistake of a prescribing druggist, eighty grains of tartar-emetic. No very serious results followed, but the use of tannin and emetics was resorted to, followed by decoctions of cinchona. The patient had been suffering with diarrhœa for several weeks, and seems really to have been benefitted rather than made worse by the rough treatment he experienced. (?) Was that tartar-emetic pure?

Intestinal Polypus Causing Invagination.—Intestinal polypi (except rectal) are so exceedingly rare that the following case reported by Dr. Barthel in the *St. Petersburger Med. Wochenschrift*, Sept. 15, 1877, is of peculiar interest. The woman, aged 38, was admitted to the hospital with the symptoms of gastric catarrh. These soon changed, however, and the diagnosis of intussusception was unmistakably clear. Various methods of treatment were adopted, but the patient died on the third day of peritonitis.

On post mortem examination, a small tumour about the size of a pigeon's egg was found in the ileum, about a foot above the ileo-cœcal valve. The invaginated portion measured half a foot, and at its upper extremity was found this tumour, which completely occluded the lumen of the intestine.

The polyp, a fibro-myoma, originated in the muscular layer, was covered with the normal mucosa, and had a comparatively small pedicle.

The Poisonous Dose of Castor-Oil Seeds.—It has long been known that the seeds of *Ricinus Communis* contain, besides the oil, a peculiar acrid principle, which causes

violent vomiting and purging, and which must be reckoned among the acrid poisons. Van Hasselts, a number of years ago, declared one seed to be sufficient to sicken a grown person, and twenty to be sufficient to kill him. This statement was contradicted by Bernelot Moens, who suspected that the seeds of another euphorbiaceous plant had been experimented with. But such was not the case; on the contrary, a number of well authenticated cases of poisoning by castor-oil seeds are on record, most of them from France, where the seeds are much in use for various purposes as a popular remedy. Chevallier mentions a case, with recovery, of a boy of seven or eight years, who had taken only one—at most, two seeds. Other cases of alarming intoxications are on record, after taking three or four seeds. In all European cases of poisoning, the number of seeds taken has rarely exceeded twenty. It should not be forgotten that the seeds are poisonous, both in their unripe and ripe state, and that the cakes remaining after the expression of the oil retain most of the acrid principle, and have often caused the death of horses and cattle.—Th. Husemann, in *Pharm. Zeit.*, No. 67.—*New Remedies.*

Removal of Strong Odours from the Hands.—The *Schweizerishe Wochenscrift fur Pharmacie* has a communication from F. Snyder, in which he states that ground mustard, mixed with a little water, is an excellent agent for cleansing the hands after handling odourous substances, such as cod-liver oil, musk, valerianic acid and its salts. Scalepans and vessels may also be readily freed from odour by the same method.

A. Huber states that all oily seeds, when powdered, answer this purpose. The explanation of this action is somewhat doubtful, but it is not improbable that the odourous bodies are dissolved in the fatty oil of the seed, and emulsionized by the contact with water. In the case of bitter almonds and mustard, the development of ethereal oil, under the influence of water, may perhaps be an additional help to destroy foreign odours. The author mentions that the smell of carbolic acid may be removed by rubbing the hands with damp flax-seed meal, and that cod-liver oil bottles may be cleansed with a little of the same or olive oil.—*Doctor.*

The Value of Drawing.—Mr. Hensman, in his eminently practical address to the students at Middlesex Hospital, strongly insisted on the value of drawing as a means of training to hand and eye. It is more: the faculty of measuring the apparent dimensions and relative proportions of objects, plays a prominent part in the attainment of all forms of knowledge. Even an ideal subject is worked out in thought with the aid of mental forms and figures. The lecturer sees heads and subdivisions of his discourse; the lawyer, the topics and connecting link of an argument, in his "mind's eye." No practice is more generally useful to the mind as well as the body than drawing, and of all forms of this art that of sketching from memory is most exacting and educational. Let the student so examine the "appearances" before him in the dissecting-room, the museum, the pathological laboratory, and the hospital, that he may carry away a mental image of the form and colour, the relative size and the relations of the several parts. Then let him sketch from memory, and, returning to the object, verify his work, correcting its inaccuracies and supplying omissions. The mental results of this system of study will not be less beneficent than the manual. The same principle applies to note-taking. It is better to write *after* observation or hearing than during a demonstration or lecture, and it will greatly facilitate study if the jottings made are as far as possible pictorial and arranged in figure. The hint is a slight one, but if worked out intelligently it will produce good effects.—*The Lancet.*

Toronto School of Medicine—Fourth Annual Dinner.—The fourth annual dinner of the faculty and students of the Toronto School of Medicine took place at the Rossin House, on Friday evening, Nov. 9th. As usual, the dinner was a great success, the number of students entered this year being so large, rendered it especially so in point of the

attendance of students. The bill of fare prepared by Mr. Irish for his guests was excellent, and did credit to his knowledge of the gastronomic science and art. Indeed, he, in a witty speech at the close, acknowledged that he worked his dietetics on an anatomical and physiological basis, providing for the alimentary canal in its whole extent even, to use his own words, as far as "the *vermifuge* appendix."

The chair was ably filled by Mr. J. R. Jones, the 1st and 2nd croupiers being Mr. W. Lehman and Mr. W. R. Sutherland. Mr. F. Burt, the Secretary, read letters from the Governor-General, Sir John A. Macdonald, Hon. E. Blake, Hon. Dr. Tupper, Mr. Justice Moss, Hon. O. Mowat, Hon. A. Crooks, Rev. D. J. Macdonnell, Mr. W. H. Howland, Rev. John Potts, Profs. Wilson, Ramsay Wright, Croft, and Pernet, Dr. McCaul, Hon. M. C. Cameron and others, expressing their regret at not being able to attend. The City of Toronto was represented by His Worship the Mayor. In addition to the faculty, among the old graduates and others, we noticed, Dr. Rae, of Oshawa; Dr. Frazer, Fonthill; Dr. McConnell, Thornhill; Dr. Smith, Sebringville; Dr. Riddell, Dr. A. H. Wright, Dr. Workman, Dr. Pyne, Dr. Griffin, Dr. Daniel Clark, Dr. James Ross, Dr. Winstanley, Dr. McPhedran, Dr. I. H. Cameron, Toronto; Dr. James White, Hamilton Hospital; Drs. Black and Bascom, Uxbridge; Dr. O'Rielly, Toronto Hospital. The usual toasts were cordially received and suitably responded to. Messrs. Bolster, Anderson, and the students' chorus gave vocal selections at intervals. The hall was tastefully decorated, thanks to the industry of Mr. Burton. It was mentioned during the evening that there were 135 students registered and 52 freshmen.

Births, Marriages, and Deaths.

BIRTHS.

At Dundas, on the 3rd inst., the wife of Dr. A. Halford Walker, of a daughter.

At London, on the 31st ult., the wife of Dr. Hagarty, of a son.

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MARRIAGES.

On the 3rd June, at the residence of the bride's father, No. 7 Gerrard Street East, Toronto, by the Rev. A. H. Baldwin, Mr. W. H. Banks, of Rosedale, Yorkville, to Emily, second daughter of Dr. Winstanley.

At St. Peter's Church, Brockville, on Wednesday, 14th inst., by the Rev. Canon Muloch, Archibald Edward Malloch, M.D., of Hamilton, to Frances Mary, daughter of the late Thomas Reynolds, M.D., of Brockville.

At Rosebank, at the residence of the bride's father, on Wednesday, the 14th, by the Rev. James Cameron, M.A., Millbrook, Ont., John Hunter, M.B., M.C.P.S., Millbrook, and son of the late David Hunter, Esq., St. George, County of Brant, to Lizzie, eldest daughter of John Renwick, Esq., near Orono, West Durham.

On the 14th inst., at the residence of the bride's father, No. 2 Queen's Park, by the Rev. Dr. Proudfoot, uncle of the bride, assisted by the Rev. Dr. Topp, John A. Stevenson, Esq., M.D., of London, Ont., son of Judge Stevenson, Cayuga, Ont., to Annie Isabel, eldest daughter of the Hon. Wm. Proudfoot, Vice-Chancellor of Ontario.

On Nov. 7th, 1877, at St. George's Church, St. Catharines, by the Rev. H. Holland, B.A., assisted by the Rev. C. Forrester Holmes, P. Harry Marshall, of Bedford, England, eldest son of the late Major G. A. Marshall, 18th Madras Light Infantry, H.E., I.C.S., to Susan A., eldest daughter of Augustus Jukes, Esq., M.B., F.O.S.L.

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1. Change of residence of any registered practitioner.
2. Deaths of medical men.
3. Additional qualifications with the proper vouchers attested, and the legal fees for the registration of such.
4. Any suggestions worthy of consideration to assist the Registrar to complete satisfactorily the new issue will be thankfully received.

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